# BADGER STATE
# Smoke Signals

For Radio Amateurs • By Radio Amateurs

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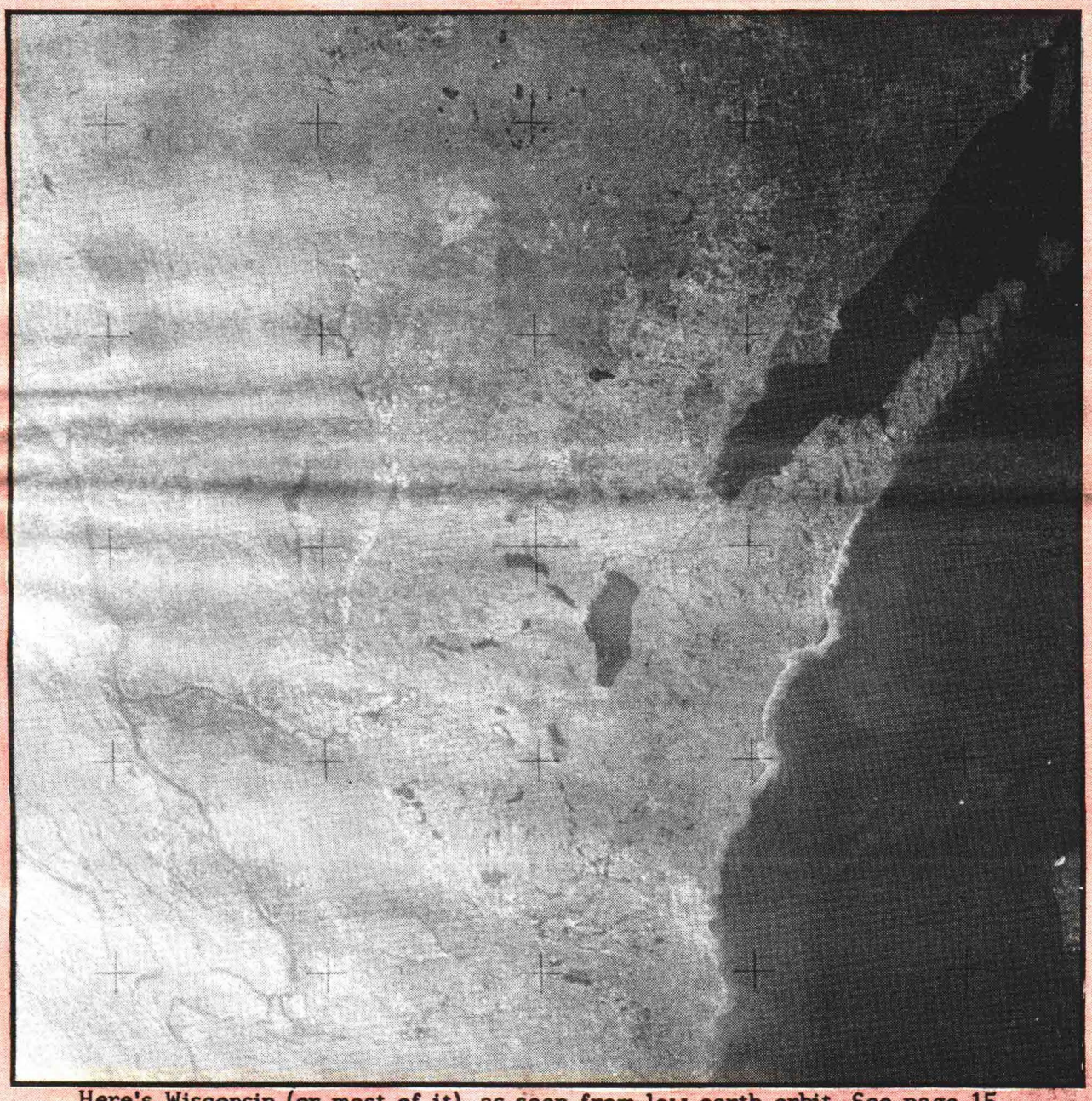


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Portage WI 53901



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## Here's Lookin' At Us



Here's Wisconsin (or most of it), as seen from low earth orbit. See page 15.




## Ham License Plate Correction

See Page 15

# ARRL to Seek Preemption

Keeping his word to his constituents, ARRL Hudson Division Director Steve Mendelsohn, WA2DHF, has succeeded in leading the League to battle to assure amateurs the continued right to engage in mobile operation. Recently, several state and local municipalities have attempted or actually engaged regulations that prohibit the transportation and use by anyone of certain types of radio gear that can monitor or transmit on police or other public service frequencies. Mendelsohn's home state of New Jersey recently enacted laws that require anyone who wants to carry and use any type of shortwave radio in a car - including amateur radio gear - to first obtain police permission.

At the recent meeting of the ARRL Executive Committee in St. Louis, Director Mendelsohn introduced a motion which was passed by the Committee that directs ARRL Counsel Chris Imlay, N3AKD, to file a request with the FCC for a declaratory ruling. The Committee wants the FCC to decree that it is preempting state statutes and local ordinances which restrict the

(Please turn to page 16)

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# Swapfests and other Social Events

SUNDAY, JANUARY 7, 1990. Lake County Computer Show, Fairgrounds - located at US 45 & IL 120, Grayslake, IL.

SATURDAY, JANUARY 13, 1990. The Original Midwinter Swapfest sponsored by the West Allis Radio Amateurs Club, at the Waukesha Exposition Center, Higways J & FT, Waukesha, Wisconsin. Contac WARAC, P.O. box 1072, Milwaukee, WI 53201. (see ad last issue for further information.)

SUNDAY, JANUARY 28, 1990. Wheaton Community Radio Amateurs Hamfest. At the Odeum Exposition Center, Villa Park, IL. $4.00 advance or $5.00 at the door. Contact: W.C.R.A., P.O. Box QSL, Wheaton, IL 60189.

SATURDAY, FEBRUARY 24, 1990. The Fox Cities ARC will sponsor HAMFEST 1990 at Sabre Lanes, Menasha, Wisconsin. Contact Don Baker, NB9J, 621 W. 7th St., Kaukauna, WI 54130. (414) 766-3886.

SUNDAY, MARCH 25, 1990. Lamarsfest at Grayslake, IL. Contact Lamars, Box 751, Libertyville, IL 60048.

SUNDAY, APRIL 8, 1990. Madison swapfest sponsored by the Madison Area Repeater Association at the Dane County Expo Center, Forum Building, Madison WI. Contact: MARA, P.O. box 4007, Madison, WI 53711. (see ad last page.)

SATURDAY, MAY 5, 1990. The Twelfth Annual Swapfest of the Ozaukee Radio Club will be held at the Circle B Recreation Center in Cedarburg, WI. Contact: ORC Swap, N5415 Crystal Springs Ct., Fredonia, WI 53021. (414) 692-2329

SATURDAY, MAY 12, 1990. Lakeshore Hamfest, Manitowoc, WI sponsored by Mancorad Radio Club. Contact: Mancorad Radio Club, P.O. Box 204, Manitowc, WI 54221-0204.

JUNE 8-10, 1990. ARRL National Convention, Kansas City, MO.

SATURDAY, JULY 7, 1990. South Milwaukee ARC Swapfest at the American Legion Park, Shepard Ave., Oak Creek, WI. Contact: SMARC, P.O. Box 102, Milwaukee, WI 53172. (see ad last page.)

As a service to our readers, this section of Badger State Smoke Signals is available without charge to list your upcoming Swapfest, Hamfest, dinner, picnic, party or other event of interest to Radio Amateurs in Wisconsin and nearby areas.

Send information on your event to Kenneth A. Ebneter, K9EN, 822 Wauona Trail, Portage, WI 53901. In addition, space is available at attractive rates on our advertising pages. For information on rates and requirements for our advertising pages, please contact K9ZZ or K9EN.

# Club Meetings

This section will not appear in every issue of Badger State Smoke Signals. If you need the information below, it is suggested that you save this column. New and changed items will appear monthly, and the complete list will appear quarterly.

BADGER AMATEUR RADIO SOCIETY
(W9YT - UNIVERSITY OF WISCONSIN - MADISON)
Monthly while school in session - 2nd Wednesday - 7:30 p.m. - B-314, Electrical Engineering Building.

CENTRAL WISCONSIN RADIO AMATEURS, LTD.
(STEVENS POINT)
Second Wednesday.

EAU CLAIRE AMATEUR RADIO CLUB
2nd Tuesday - 7:30 p.m. - Parks and Recreation Bldg., Oxford and 1st Streets, Eau Claire. Hams, guests welcome. Travelers welcome on wide area club repeater K9UXP, 146.31/91.

FOUR LAKES AMATEUR RADIO CLUB (MADISON WI)
First and third Tuesdays - 7:30 p.m. - Red Cross Bldg., 4860 Sheboygan Ave.

FOX CITIES AMATEUR RADIO CLUB
Third Monday - 7:00 p.m. - Roosevelt Jr. High School, 318 E. Brewster St., Appleton. Info: (414) 766-3886. Winter banquet: January 13, 1990.

GREATER MILWAUKEE DX ASSOCIATION
Fourth Monda of the month at 7:30 p.m. Contact Jerry Scherkenbach, N9AW, at (414) 481-8831 for meeting location.

GREEN BAY MIKE AND KEY CLUB
Second Thursday - Red Cross Bldg., corner Danz and Deckner, Green Bay.

GREEN FOX AMATEUR RADIO CLUB
Third Monday - 7:30 p.m. - Green Lake Town Hall, int. of county hwys. K and N.

KETTLE MORAINE RADIO AMATEURS
Second Friday, 7:30 p.m. at the Kettle Moraine High School, located near the intersection Hwys 18 & 83 in Wale, WI. Talk-in on 147.39 repeater.

LAKESHORE RPTR. ASSN.
Last Tuesday, Jan., Apr., Jul., & Oct., 7:30 p.m. Red Cross Bldg., 4521 Taylor Ave., Racine, WI.

MANITOWOC COUNTY RADIO AMATEURS
Directors Meeting: First Wednesday.
General meeting: Second Wednesday.
Both meetings held at 7:30 p.m. in the basement, Manitowoc City Hall, 817 Franklin ST., Manitowoc.

MENOMONEE FALLS AMATEUR RADIO CLUB
Last Tuesday - Doors open 7:30 p.m., meeting begins 8:00 p.m. - Security Savings and Loan, Menomonee Falls. Amateurs and guests welcome.

MILWAUKEE RADIO AMATEURS CLUB
Fourth Thursday - Wauwatosa Savings and Loan, 7500 W. State St. (November on the third Thursday. No meetings in July, August and December.) Meetings begin at 7:00 pm.

NORTHERN WISCONSIN RADIO CLUB
4th Tuesday - 7:30 p.m., Sept. through April. Peppermill Restaurant, Thunderbird Mall North, Menomonie, WI. Guests welcome.

OZAUKEE RADIO CLUB
Second Wednesday - 7:30 p.m. - Saukville Community Center.

QCWA - WISCONSIN CHAPTER #55
For information about QCWA, contact Richard Regent, K9GDF. The Wisconsin Chapter holds Spring and Fall dinner meetings.

QCWA - SOUTHEAST WISCONSIN CHAPTER #162
Meets third Monday monthly, 7:30 p.m., Around the Clock Restaurant, 3012 Rapids Drive, Racine.


## —BADGER STATE SMOKE SIGNALS—

OFFICERS AND STAFF

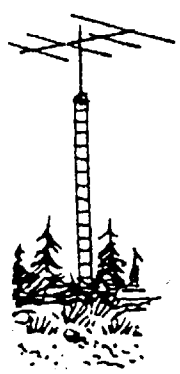
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ADDRESS CHANGES AND CORRECTIONS should be sent to Kenneth A. Ebneter, address above.

EDITORIAL MATERIAL, PHOTOGRAPHS, FEATURE ARTICLES, AND EXCHANGE PAPERS should be sent to Jim Romelfanger, address above.

DISPLAY ADS or INQUIRIES REGARDING DISPLAY ADS may be directed to Harry Westlund or Kenneth Ebneter, addresses above.

SUBSCRIPTIONS should be sent, with check or money order (do not send cash), to Jim Decker, address above.

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SUBSCRIPTIONS

| | | |
|---|---|---|
| 1 year | (12 issues) | $8.50 |
| 2 years | (24 issues) | $16.00 |
| 3 years | (36 issues) | $23.00 |

EDITORIAL DISCLAIMER

The opinions expressed in editorials, guest editorials, columns, articles, and letters are the opinions of the authors only, and do not, unless otherwise stated, express or imply agreement or endorsement by Badger State Smoke Signals, or by any other organization.

RACINE MEGACYCLE CLUB
Second Monday, 7:30 p.m., Red Cross Bldg., 4521 Taylor Ave., Racine, WI

RIVERLAND AMATEUR RADIO CLUB
First Tuesday - 7:30 p.m. - Onalaska Community Center, Onalaska WI.

ROCK RIVER RADIO CLUB
First Tuesday - 7:30 p.m. CST, 8:00 p.m. CDT - Dodge County Sheriff's Dep't, 141 N. Main, Juneau WI. ARES net - 146.64 MHz., Monday 7:30 p.m. CST, 8:30 p.m. CDT. 7277 Khz., Saturday 10:30 a.m.

SHEBOYGAN COUNTY AMATEUR RADIO CLUB
Second Tuesday - 7:00 p.m. - Sheboygan Red Cross/Boy Scout Bldg., 2032 Erie Ave.

SOUTH MILWAUKEE AMATEUR RADIO CLUB
First Wednesday - Legion Post 434, Shepard Ave., Oak Creek WI. Auctions in March and October.

TAYLOR COUNTY AREA AMATEUR RADIO CLUB (TCAARC)
MEDFORD
Usually the 2nd Thursday of the month at 7:00 PM sharp. Usual location: emergency government meeting room, basement of Sheriff's Annex to Taylor County Courthouse, 2nd and Ogden Sts., Medford, WI. Talk-in on 147.75/15 or 145.27(-600) repeaters. Amateurs & guests are welcome. ARS Net, Wednesday nights at 8:30 PM on 147.75/15. For info call Mike, N9GHZ at (715) 223-3996.

TRI-COUNTY AMATEUR RADIO CLUB
Second Sunday of each month. Meetings are held at 7:00 p.m., at the Trinity Lutheran Church, 314 Barrie, Fort Atkinson, WI.

WASHINGTON COUNTY AMATEUR RADIO CLUB
Tuesday: ARES/RACES - 7:30 p.m., club meeting - 8:00 p.m., Town of Polk Town Hall, Hwy. 60 and Scenic Dr. Net on 146.13/73 every Monday 7:30 p.m.

WATERTOWN AMATEUR RADIO CLUB
First Thursday of the month at 7:00 p.m., Eaton Corp., 901 s. 12th St., Watertown, WI

WAUPACA AMATEUR RADIO CLUB
First Saturday in March, June, September and December. Election of officers will be held at the March 3, 1990 meeting held at the Waupaca Fire Station in downtown Waupaca at 9:30 a.m.

WEST ALLIS RADIO AMATEUR CLUB
Second Tuesday - 8:00 p.m. - St. Francis Savings, 9330 W. Greenfield Ave.

WISCONSIN ASSOCIATION OF REPEATERS
Meetings are held Quarterly, with time and location to be announced. Repeater licensees, trustees, and sponsors are urged to attend W.A.R. meetings. All interested parties are welcome.

WISCONSIN VALLEY RADIO ASSOCIATION (WAUSAU)
First Tuesday - 7:30 p.m. - Location varies; info on 146.04/64, Wausau.

YELLOW THUNDER AMATEUR RADIO CLUB (BARABOO)
Days rotate: 1990 meeting dates: Tuesday, January 16, 1990, in room 14 of the Baraboo Civic Center, Baraboo, WI. Meetings start 7:30 p.m.

Let Badger State Smoke Signals know your club's meeting dates, and we will let our readers know of your meetings and activities. There may be Amateurs in your area interested in joining your club, or members of other clubs interested in making an interclub visit.

## The TEST POINT

Complete Testpoint information may not be printed in Badger State Smoke Signals every month. Dates and Cities along with any changes will be included every month. If you need the information, it is suggested that you retain this issue for reference. The complete listing will appear quarterly.

The following are known locations where Amateur Radio license examinations are scheduled in the Badger State area. (Underlined are added or changed since last months BSSS.)

| | |
|---|---|
| January 3, 1990 | Milwaukee, WI (MRAC) |
| January 13, 1990 | Madison, WI |
| January 13, 1990 | Eau Claire, WI |
| February 7, 1990 | Milwaukee, WI (MRAC) |
| February 24, 1990 | Madison, WI |
| March 7, 1990 | Milwaukee, WI (MRAC) |
| March 31, 1990 | Menomonie, WI |
| April 7, 1990 | Madison, WI |
| April 4, 1990 | Milwaukee, WI (MRAC) |
| April 14, 1990 | Eau Claire, WI |
| May 2, 1990 | Milwaukee, WI (MRAC |
| June 6, 1990 | Milwaukee, WI (MRAC) |
| July 13-14, 1990 | Eau Claire, WI |
| September 13, 1990 | Eau Claire, WI |
| November 3, 1990 | Menomonie, WI |
| Monthly, First Sat. (except January, July & August) | Racine, WI |
| Monthly, Last Sat. (January thru October only) | Tomahawk, WI |
| Monthly, Third Sat. | Loves Park, IL |

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GENERAL RULES FOR MOST EXAMINATIONS:

Be sure to check with sponsors in the event there are changes and/or errors in the dates or information given.

Most examinations require filing an FCC Form 610 and advance registration at least 30 days before the exam date. (Some VECs permit walkins. Check with sponsor.)

To register, you must first secure a copy of the current FCC Form 610 and fill it out completely (AND CORRECTLY). Get your form from an FCC Field Office, the ARRL or Badger State Smoke Signals. Send a 25¢ SASE if you request one from the ARRL or BSSS. In most cases, forms can also be obtained from the sponsoring group.

ARRL/VEC examinations require a check for $4.95 payable to "ARRL/VEC".

The FCC now requires applicants to show their original Amateur license to the VEC. A copy of your license must be attached to your FCC form 610. You will also be required to have a photo ID, or other acceptable idntification.

Technician class licensees must show proof of testing before March 21, 1987, in order to upgrade to General with a code test only.

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MILWAUKEE RADIO AMATEURS' CLUB - MRAC/VEC

1990 examination dates: Jan. 3; Feb. 7; Mar. 7; Apr. 4; May 2; June 6.

Tests are Wednesday evenings at 7:00 p.m. at Wauwatosa East High School, North 74th and Milwaukee Avenue. Enter through the southmost entrance on 74th Street. Go to room 256 on the 2nd floor. Arrive promptly so testing can be completed before 10:00 p.m. Bring your original license and three (3) good photocopies, plus two forms of identification, such as a driver's license, etc. A pen and $4.75 for the exam fee is also required. Register in advance on a 15 cent U.S. post card; print the grade of license you are applying for, your name, address, and telephone number. Send the card to MRAC/VEC, c/o Jack Krause, W9JK, 1737 North 116th Street, Wauwatosa, WI 53226, or to Ed Seruga, KE9JJ, 3840 South 43rd Street #21, Milwaukee, WI 53220. Telephones: (414) 774-6999 or (414) 545-6299.

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BADGER EXAMINERS (BE) - MILWAUKEE

Unless otherwise noted, examinations are administered beginning at 1:00 p.m. to 3:30 p.m. at St. Nicholas Church basement, 5345 N. Green Bay Ave. (2 1/2 blocks south of Silver Spring), Milwaukee. Walkins are welcome. To register in advance, send a post card with your name, test or tests you wish to take, date you wish to take., your call sign, address and telephone number to Badger Examiners, Gary J. Sharbuno, WI9M, 5119 W. Willow Rd., Brown Deer, WI 53223. Telephone (414) 355-0237.

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MENOMONIE, WI (ARRL-VEC)
March 31 and November 3, 1990

Credit Union Bldg., 444 S. Broadway, Menomonie, WI. Contact: Dr: T. King, WF9I, 108 Shorewood Dr., Menomonie, WI 54751. (715) 235-5757.

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EAU CLAIRE, WI

Tests will be given on the following dates: January 13, April 14, July 13 and 14, and September 13, 1990

The January, April and September examinations will be given at the Facilities Management Building, The University of Wisconsin, Eau Claire Campus. The July Examinations will be held in conjunction with our Hamfest at the Eau Claire Junior Fair Grounds.

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MADISON WI - ARRL/VEC

January 13 - February 24 - April 7 (MARA swapfest).

All exams will be held at Fire Station No. 2, 421 Grand Canyon Dr., with the exception of the April 7 date, which will be annonced later.

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RACINE, WISCONSIN - ARRL/VEC

Monthly - first Saturday, except January, July, and August.

Exams are given at the Red Cross Building, 4521 Taylor Avenue, Racine. Walkins are permitted. Inquiries and registrations should be directed to William Firchow, Jr., NW9P, 1912 27th Street, Kenosha, WI 53140, telephone (414) 658-8390.

(continued on page 19)

# Wisconsin Nets Association Ltd.

WISCONSIN NETS

| Net | WNA | Freq. | UTC | CST | Manager |
|---|---|---|---|---|---|
| BWN | Yes | 3984 | 1200 | 0600 | KC9CJ |
| BEN | Yes | 3985 | 1800 | 1200 | WA9W |
| WSBN | Yes | 3985 | 2330 | 1730 | K9UTQ |
| WNN | Yes | 3723 | 2400 | 1800 | KA9FVX |
| WSSN | Yes | 3645 | 0030 | 1830 | N9BDL |
| WIN/E | Yes | 3662 | 0100 | 1900 | WB9ICH |
| WIN/L | Yes | 3662 | 0400 | 2200 | W9NGP |
| NWTN | Yes | 34/94 | 0030 | 1830 | NS9Q |
| 6:30 Net | No | 01/61 | 0030 | 1830 | KA9OMC |
| Gr. Bay | No | 72/12 | 0245 Thu. | 2045 Wed. | WB9NRK |
| RACES | No | 3993.5 USB Tues. and Thurs. | 1815 | 1215 | WC9AAG |
| RACES | No | 3993.5 LSB Sunday | 1400 | 0800 | WA9OAY |

# Section Manager's notes



Richard R. Regent, K9GDF
5003 South 26th Street
Milwaukee, WI 53221

Congratulations to KC9XH, of Verona, who is newly appointed District Emergency Coordinator for both South Central and South West districts, and also to W9UDX, of Oshkosh, who is new Emergency Coordinator of Winnebago County.

If you would like to learn how to prepare for emergency communications, please contact our Section Emergency Coordinator, W9ZAG, of Muskego.

Rock River RC nets meet Saturdays on 7.277 or 3.985 MHz at 11:00 a.m., and Mondays on 146.04 MHz at 7:30 p.m.

February 2 and 3rd, the Four Lakes ARC will operate a special event station from the ground hog capital of the world, Sun Prairie.

February 7th, exams at Wauwatosa East High School, are at 7:00 p.m.

Fox Cities ARC will hold a Hamfest at Sabre Lanes in Menasha on February 24th, catch NB9J for details.

Exams February 24th will be at Fire Station No. 2 in Madison at 8:00 a.m.

Milwaukee RAC will again have their all-classes amateur license classes on nine Wednesdays at 7:30 p.m., starting February 28th; contact WB9BWP for more information.

Visit the Waupaca ARC on their first Tuesday of the month CQ meetings at King's Table, Highway QQ in King, just southwest of Waupaca, at 11:30 a.m., with talkin on 147.39 MHz.

The Oshkosh ARC is proposing some improvements to their club constitution.

Sorry to report Silent Keys W9YYY and K9PZH.

Thought of the month: If something is confidential, it will be left in the copy machine.

# ARES Repeaters

A monstrous tornado has just ripped through your town. Millions of dollars of damage has been done. There is no power or telephone for miles. You have been assigned by your emergency coordinator to provide emergency communications services to the Emergency Government Coordinator for your county. Your local ARES has been activated, and a net set up on the local ARES repeater. Hams from adjoining counties have arrived, and have been given assignments under the mutual aid pacts previously established with these counties.

You are standing beside your E.G. Director, who has just finished talking with the chief of police and fire department. Around you, as far as the eye can see, lie destroyed houses, garages, and overturned cars. Power lines, power poles, and trees litter the streets. Travel by foot is treacherous; travel by vehicle is almost impossible.

Your E.G. Director turns to you and says, "I've got to talk to Madison. Is there any way you can do it?" You respond, "I'm pretty sure I can. Do you have the phone number that you want to call?" He gives you the phone number, and you start punching buttons on your HT. A few seconds later, the sound of a telephone ringing is heard and you are phone-patch linked to the Emergency Government Office in Madison. You hand the HT to the E.G. Director.

Sounds impossible? Absolutely not! The technology is available, and has been for some time. Linking repeaters is ho-hum in this day of synthesized voice controllers, digital mailboxes, and speed dial phone patches.

What is missing is a state-wide system of dedicated ARES repeaters, and the will on the part of some repeater groups to devise a plan and coordinate their activities so that this type of service can be provided.

Another thought: The ARRL has petitioned the Federal Communications Commission to allow a no-code license on 220 MHz and above. At the moment, there is a lot of room on 220, and some is left on 440. The newcomers will rapidly fill up these bands. They will need leadership and guidance in learning proper procedures and discipline in order to prevent the reoccurrence of the CB experience on eleven meters.

I would like to propose that local ARES groups, under the leadership of their EC or DECs, organize to set up ARES dedicated, wide-area repeaters on 220 and 440, with linking capability throughout the system. The ARES repeaters should be basic, no-frills systems, with emphasis on solid coverage over a wide area, and reliability.

The linking system should be simple but flexible. Agreements and systems should be established with club repeaters to provide the "bells and whistles" (primarily the local phone patch capability). In the example above, the connection from the disaster area to Madison would utilize one or more links through ARES repeaters to the Madison area, where a final link would be made (pursuant to a prior agreement) through the phone patch of a local, club-operated repeater.

Why ARES repeaters? Simply stated, it is to avoid the problems which often arise when a club is asked to devote its resources toward emergency preparedness goals. Clubs are social organizations. The goals of a club and the repeater it operates are often in conflict with the ARES focus on emergency operations and civic events. By establishing a separate organization to concentrate exclusively on emergency preparedness, it is possible to avoid these conflicts. (There are other conflicts, however, so don't assume that all will be hunky-dory).

The Milwaukee system is a possible model. The local ARES is composed of volunteers headed by the EC. The membership consists of those who are currently active. On the other hand, the repeater and related equipment are owned by a not-for-profit corporation, with a board of directors that is small and limited to people who have a proven, ongoing commitment. The corporation has no other members or shareholders. Its Articles and Bylaws specifically require it to focus on and support the EC's emergency preparedness activities.

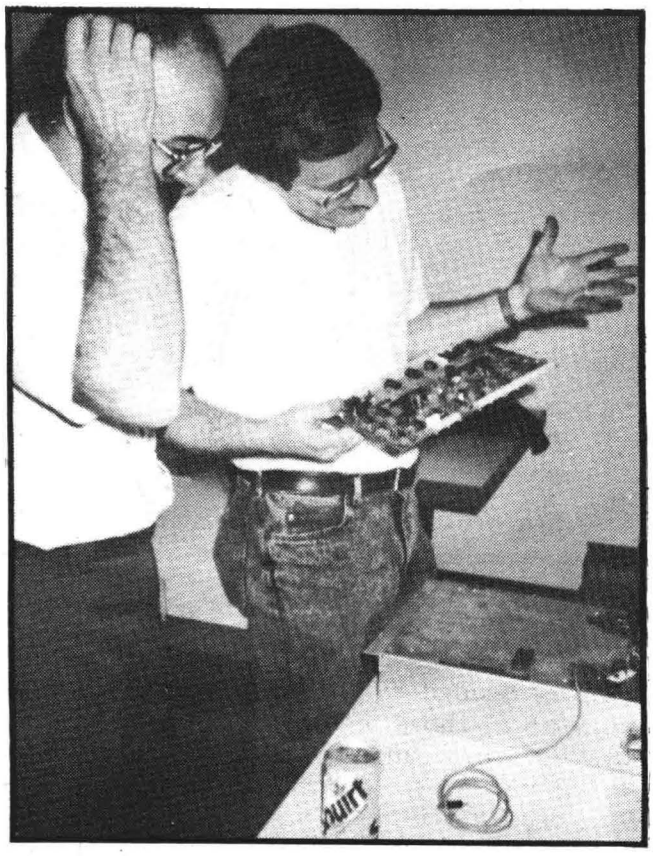
While establishing a corporation is not the only avenue (one might be able to prevail upon the local emergency government director to subsidize the purchase and operation of a repeater with the same result), it is a workable approach. It takes some time and effort to set up a corporation of this type, but the bigger problem is finding the funding to support it. I will be happy to supply information on the Milwaukee experience, which can be drawn upon in setting up similar operations elsewhere.

In summary, a statewide network of ARES dedicated repeaters can (1) vastly enhance the capacity of local ARES organizations to respond to emergency situations, (2) set aside and preserve soon-to-be-scarce frequencies for emergency use, and (3) play a role in educating new hams in the best tradition of public service.

- John Leekley, WB9SMM
District Emergency Coordinator,
South East Wisconsin
W169 N8480 Sheridan Drive
Menomonee Falls, WI 53051

GOING TO THE MID-WINTER SWAPFEST in Waukesha on January 13? If so, be sure to stop by and visit the **Badger State Smoke Signals** crew! It's a great opportunity to chat with Chairman Ken Ebneter, K9EN.... and a great chance to subscribe or renew your subscription!

## HERE and THERE



In this photo, Paul Goemans, WA9PWP (left), and Steve Polishinski, WB9YSD, ponder the significance of all those funny little things on a repeater controller board. Steve's wife, Barb, recently received her Technician license, and is now signing the call N9JAR.

:-----:

**THE WISCONSIN QSO PARTY,** sponsored annually by the West Allis Radio Amateur Club, will be held from 1800Z March 10 to 0100Z March 11, 1990. Since this is relatively early in March, we will publish the rules and official entry form in our February issue of **Badger State Smoke Signals,** rather than in the March issue.

The West Allis club also sponsors the Mid-Winter Swapfest each January in Waukesha, and the annual Emil Kumershek Memorial Scholarships, which are available to Wisconsin Amateurs only.

:-----:

**AMATEUR ELECTRONIC SUPPLY** has moved their Milwaukee store to a new location; see the ad on page 13 of this issue.

:-----:

CONGRESS AGREES: NO FEES FOR AMATEUR LICENSEES! The joint House-Senate Conference Committee, reviewing both versions of the Omnibus Budget Reconciliation Act of 1989, has approved deletion of the amateur license fees from the legislation.

In its report released on November 21, the Conference Committee stated: "Both the House bill and the Senate bill include fees on licensees in the amateur radio service. The Conference Report strikes all of the fees for amateur radio licensees. The Conferees recognize that amateur licensees do not operate for profit and play an important public safety role in times of disaster or emergency."

In the early morning hours of November 22, both Houses of Congress adopted the Conference version of the bill sending it to President Bush for his signature.

In the current budgetary environment, avoiding fees altogether is an enormous accomplishment. The American Radio Relay League congratulates all who played an active role in writing to their Senators and Representatives helping in this effort. Look for an upcoming QST article that will detail how amateurs won this important battle.

**- The ARRL Letter**

EDITOR'S NOTE: We carried a last-minute brief story about the deletion of fees for amateur licenses page 19 of our last issue; the above expands on that story. Also see "It Was Touch and Go for Ham Fees" on page 9 of this issue. We join the ARRL in thanking all who helped us win!

:-----:

**FCC ISSUED CALL SIGN UPDATE:** The following is a list of most recently issued FCC call signs (November 1).

| Dist | Group A Extra | Group B Adv | Group C Tec/Gen | Group D Novice |
|---|---|---|---|---|
| Ø | WXØY | KFØGC | NØLFA | KBØFJN |
| 1 | NZ1P | KC1QW | N1HBP | KA1UQD |
| 2 | WU2H | KE2QE | N2KAM | KB2ISS |
| 3 | NX3G | KD3PV | N3HPO | KA3VHS |
| 4 | AB4RM | KM4ZZ | N4XHB | KC4MZT |
| 5 | AA5OQ | KG5ZR | N5PNP | KB5KXU |
| 6 | AA6SA | KK6BZ | N6WUU | KC6GQO |
| 7 | AA7CF | KF7XY | N7NTQ | KB7IWN |
| 8 | WX8A | KF8CE | N8LMP | KB8IIT |
| 9 | WM9F | KE9ST | N9JAI | KB9DNF |
| GU | KH2K | AH2CF | KH2EG | WH2AMH |
| HI | ** | AH6KB | NH6VC | WH6CFU |
| AK | ** | AL7LP | NL7SV | WL7BVU |
| USVI | NP2F | KP2BR | NP2DK | WP2AGZ |
| PR | ** | KP4QJ | WP4WZ | WP4IPE |

** indicates that all 2 x 1 call signs have been assigned in those areas.

The N-prefixed Group C (1 x 3) call-sign blocks for the fourth and sixth call districts have nearly all been assigned. After N4ZZZ and N6ZZZ have been issued, FCC will begin assigning calls from the Group D (2 x 3) call-sign block.

**- The ARRL Letter**




YEAH, YOU'RE RIGHT--- I MUST HAVE BEEN LOOKING AT THE INSTALLATION INSTRUCTIONS UPSIDE DOWN!

## *FLARC Plans Special Event Station for Ground Hog Day*

The Four Lakes Amateur Radio Club, of Madison, will operate Special Event Station W9JZ from Sun Prairie, "The Groundhog Capital of the World", February 2nd and 3rd, from 1400Z to 0200Z each day. Suggested frequencies: SSB - lower portion on the General 40, 20, and 15 meter bands; Novice frequencies on 10 meters. For a certificate, send your QSL, contact number, and a 6" x 9" SASE (for unfolded certificate) or a #10 SASE (folded certificate) to Jake Kitzinger, N9ITN, P.O. Box 277, Sun Prairie, WI 53590. **- FLARC**

## *Happy New Year from Badger State Smoke Signals*

BADGER STATE
**Smoke Signals**
For Radio Amateurs • By Radio Amateurs

- REGULAR INDIVIDUAL SUBSCRIPTION RATES -
Please make checks or money orders payable to Badger State Smoke Signals.

1 year (12 issues) $8.50
2 years (24 issues) $16.00 (save $1.00)
3 years (36 issues) $23.00 (save $2.50)

Please send check or money order to Jim Decker, WB9UQT, Treasurer, P.O. Box 337, Baraboo, WI 53913-0337.

PLEASE PRINT 9001

Name: _____ Call (if any): _____

Address: _____ City: _____ State: _____ ZIP: _____

☐1 year ☐2 years ☐3 years ☐new ☐renewal

## Northern Wisconsin Radio Club

—Since 1923—

Steve Kraft, KE9RW
Secretary
Rt. 7, Box 62
Menomonie, WI. 54751

The last meeting of the NWRC was called to order by President Steve, KA9-OMC, at 7:30 p.m., November 28, 1989, in the back room of the Peppermill Restaurant in the Thunderbird Mall, Menomonie. Steve, KE9RW, read the minutes of the last meeting. Steve, KA9OMC, gave the treasurer's report, present balance, $101.32. Arlene, N9JBN, moved to approve the reports, and Bob, W9BAR, seconded.

Our old business was discussed. Jim, WB9YMB, moved that we hold the NWRC auction on February 20, 1990, in Eau Claire. Ernie, WØLUY, seconded. The auction will be at 7:30 p.m. at the American Legion Post 53, at 634 Water Street. The hall will be open at 7 p.m. Admission to the auction is free to NWRC members (1990 dues $5.00), or $3.00 for non-members.

The new business is as follows: Amateur Radio equipment is being sold from the estate of Byron Stolpe. For more information, call Rolin, KB9AER, at 643-7777. The club will contact Marlin, WJ9Y, about presenting a program on lasers for our next meeting.

Some announcements of interest were made. Nice to hear W9BLU is active again. Sorry to note the passing of Clarence, K9PZH, of Ladysmith. Message storage on the new packet node in Eau Claire was discussed. The WIEAU (WØAIH-1) node can be used to access the W9NNS-2 packet bulletin board system (PBBS) if a direct link cannot be made. This PBBS can be used for storage and for the forwarding of messages.

Twenty-four people attended the meeting. Bev Rassbach won the ham door prize offered by the club.

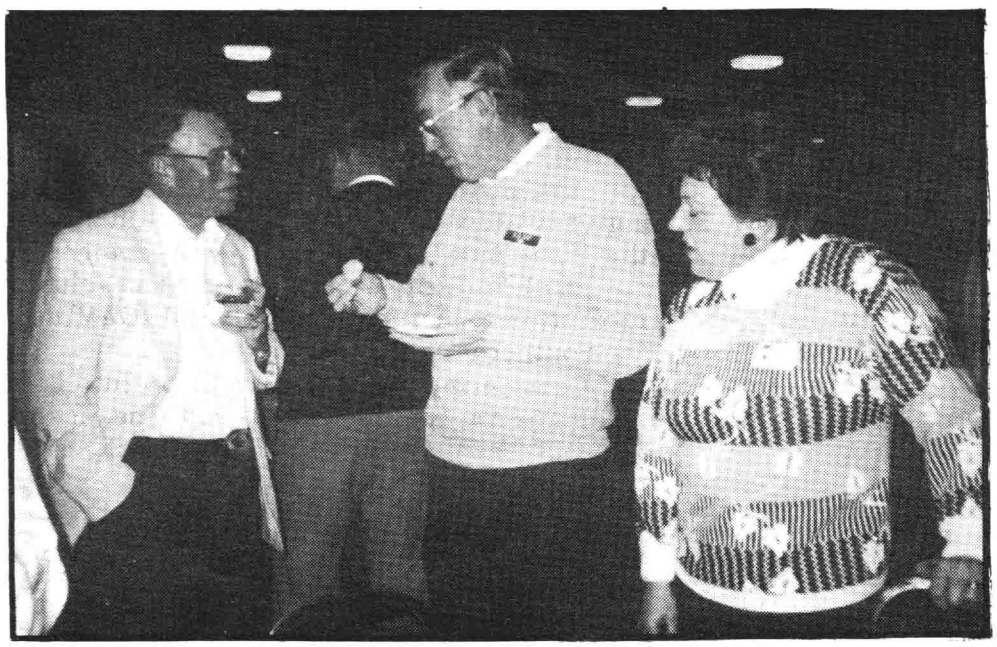
The next meeting will be January 23, 1990, at the Peppermill Restaurant, Menomonie. Remember the club auction February 20.

Sally Carlson made a motion to accept the new business report and to adjourn. Mike, NØBSH, seconded.

Following the meeting, Bob, K9RRU, gave a presentation on his trip to Turkey. The meeting adjourned at 8:50 p.m.

Steve Kraft, KE9RW, Secretary

# MARA Merriment



The Madison Area Repeater Association (146.16/146.76 and 147.75-/145.15/Madison) held its annual Christmas party on Monday, December 4 at the Heritage House in Madison. In the photo at right, Bill Aspinwall, W9UGT (left), chats with Bob Garske, K9JMP (center), and Bob's wife, Jan.




Live musical entertainment for the MARA Christmas party came from these three accomplished musicians. Pictured from left to right are drummer Bob Probst, W9RUB; trumpeter Vern Carlson, WB9PTJ, and keyboard artist John Wolozyn, W9ORS ("Old Rip Snorter"). About 65 hams, wives, etc. attended the party.

## HERE and THERE

**PLEASE EXCUSE OUR SHUFFLE!** We moved the Riverland ARC's info from its usual spot here on page 6, expecting to print a feature article on this page; of course, the article did not come (Murphy's Law of Anticipated Articles). We may, however, try to group the various clubs' information toward the back of future issues, so that features - when we do have them - will appear toward the front of the newspaper. - Editor

:------:

**RADIO AMATEUR CALLBOOK SOLD TO BPI COMMUNICATIONS, INC.:** On October 27, Herb Nelson, President and Publisher of the Radio Amateur Callbook announced the completion of the sale of all outstanding shares of Radio Amateur Callbook, Inc. to BPI Communications, Inc.

BPI Communications, Inc. publishes World Radio TV Handbook, a well known publication for short wave listeners. Glen Heffernan, Vice President and Publisher for BPI, says that The Callbook "....is a natural complement to our publication....that will benefit both licensed amateurs and short wave listeners."

The Radio Amateur Callbook, Inc., has published The Callbook, a listing of all radio amateurs world-wide, since 1920. Located in Lake Bluff, Illinois, Radio Amateur Callbook, Inc. is the oldest commercial firm serving the Amateur Radio community. - **The ARRL Letter**, 12/01/89

MODE: PONY EXPRESS



# ARRL/VEC Exam Certificate Acceptance Policy

After being told by an Amateur that a VE team (under the ARRL/VEC) had refused to honor a Certificate of Successful Completion of Examination (CSCE) which had been issued by a VE team of another VEC, we asked Bart Jahnke, KB9NM, Manager of the ARRL/VEC, about their policy regarding the acceptance of CSCEs of other VECs. Bart's reply states (part of the below is from the new VE Manual, to be distributed around January 1, 1990):

"ARRL VEs are given the following instruction:

"CSCEs Section 97.505(2) provides for a candidate to be given credit for code and written elements passed at earlier VEC-coordinated sessions. A CSCE is valid for up to 365 days after it is issued, and it conveys credit for only those elements and the upgrade indicated. (Not all CSCEs validate an upgrade.)

"To be given CSCE credit for any element(s) claimed at your test session, the candidate must present your team with the actual valid CSCE - not a photocopy - that indicates the element(s) that the candidate is claiming. A candidate may hold more than one valid CSCE at test time. The CSCE(s) may have been issued by any VEC and still be accepted in the ARRL/VEC Program.

".... the non-acceptance of a CSCE can be based upon a couple of factors. They are:

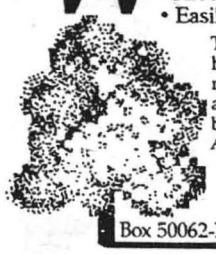
* Improper, or lack of proper identification.
* An improperly completed CSCE.
* An altered CSCE.
* This CSCE not being the original signed document (photocopies may not be accepted).

Else, **a CSCE from any other VEC must be accepted for Element Credit in the ARRL/VEC program.**"

The Fifth Edition of the VE Manual of the ARRL/VEC also says that, if there is a question about a CSCEs validity, the ARRL/VEC will check its records or those of the VEC that coordinated the session where the CSCE was issued and will verify the status.

The bottom line is: your CSCE must be accepted by an ARRL/VEC VE team, regardless of which VEC's team issued your CSCE, subject to the four conditions listed above.

**Where's the Beam?**
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There's a 20 meter antenna with real DX Punch hidden in this picture. You can't see it, and your neighbors can't either. But it works DX barefoot anyway. How about a low profile 80/40/30 tribander? Or a 2 element monobander for the attic? All easily fit the pocketbook--Priced $29 to $99.

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# Ron Radmann, K9DGR - Silent Key

Ron Radmann, K9-DGR, 51, Portage, was killed Dec. 4 while walking across Mississippi highway 8 from his tractor-trailer rig. "K9 Dogs, Gophers, and Rabbits" is shown here with Everett Yost, KB9XI (left), and Ken Ebneter, K9EN (right), at Field Day in 1989. He had been an amateur for more than 30 years. He leaves his wife, Marge.



# FCC Wouldn't Help; Maybe President Bush Will

A spokesman for the Veterans Administration Amateur Radio Station in Los Angeles, California, says that the Federal Communications Commission (FCC) refusal to assist in removing interfering stations from the air while their station and others were attempting to provide earthquake disaster relief communication is intolerable, and that the matter is being brought directly to the attention of the White House!

In a telephone interview with the Amateur Radio Newsline on November 9, station manager Frank Collins, N6TAF, related his ongoing frustration with gaining FCC action on the malicious interference problem that has plagued operations of all disaster communications for the better part of a month. Collins said that, in the past weeks, there was never a time when the Cerritos FCC field office telephone was not busy. When he finally got through, he found only an answering machine with an outgoing announcement.

Collins then attempted to contact FCC Special Services Division Chief Robert MacNamara, but was told that he was unavailable. Collins says that he was connected to Personal Radio Branch Chief John B. Johnston, W3BE. Johnston allegedly told Collins that the Commission's Washington office could not be of any help in the situation, and referred him again to the local FCC office and the ARRL Volunteer Monitoring Organization (VOLMON) for Southern California.

Considering the problem to be intolerable, N6TAF told Newsline that the decision has been made to bypass normal amateur radio channels, including that of the ARRL's VOLMON, and to bring the issue of the FCC's alleged negligence to the attention of President George Bush, either directly or through Chief of Staff John Sununu. Collins feels that the power of White House intervention might be the only method of getting FCC enforcement off its backside and onto the trail of those who are willing to risk lives for their own amusement.

**- The Westlink Report**

# *H. Charles Kaetel Amateur Radio School Schedules Milwaukee Classes*

The Milwaukee Radio Amateurs' Club is offering:

* Novice classes for beginners,
* Technician/General classes, and
* Advanced/Extra classes.

The classes will be held on nine Wednesday evenings, as follows:

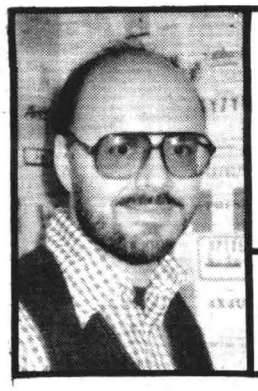
Feb. 28; March 7, 14, 21, 28; April 4, 11, 25; May 2. There is no class on April 18 (spring break at the class site).

Classes will be held from 7:30 to 9:30 p.m. at Wauwatosa East High School at North 74th and Milwaukee Avenue. Parking is available on the east side or the 74th Street side of the school.

Registration will be on the first night of classes (Feb. 28), in room 256 at 7:00 p.m.

A nominal fee of $12.00 will be charged. For your convenience, required texts will be available for sale at the school.

For more information, please contact Dave De Febo, WB9BWP, S87 W12620 Larkspur Road, Muskego, WI 53150, telephone (414) 529-5583, or write to Milwaukee Radio Amateurs' Club, Inc., P.O. Box 91, Milwaukee, WI 53233.

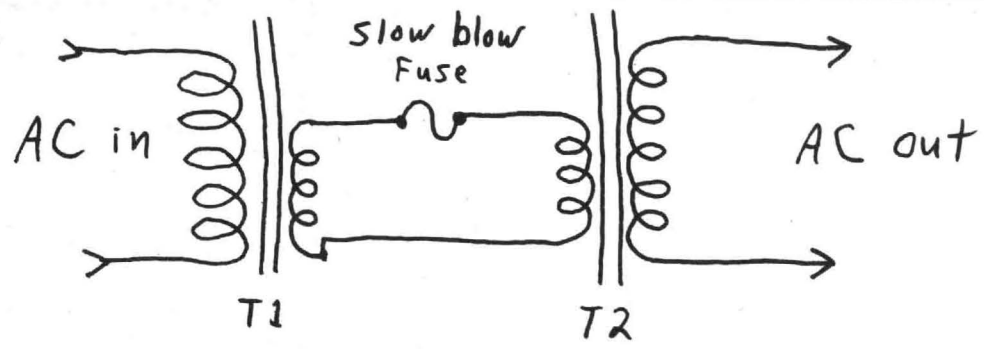


# John's Junk Box

By John W. Frank, WB9TQG
P. O. Box 5113
Madison, WI 53705

SCHEMATIC DIAGRAM

NOTE: The current (amperage) rating of the slow blow fuse should equal the current capacity of the secondary winding of transformer T1.




## LOW BUDGET ISOLATION TRANSFORMERS

Before I describe one solution to the high cost of isolation transformers, it might be beneficial to explain what an isolation transformer is, and why I use it.

Most modern, good quality electronic equipment uses a three-wire line cord in the interest of safety. Most of the equipment I work with also uses power transformers to provide the correct operating voltages for the different stages and circuits within a device. However, it wasn't always like that.

For a number of years, equipment was manufactured without power transformers. Tube filaments were connected in series with voltage-dropping resistors. Half-wave rectifiers were used to provide plate voltage in most of these circuits. There were two advantages to building equipment without power transformers. First was the matter of cost: eliminating the transformer reduced the cost of making the piece of equipment. Second, the absence of a power transformer meant the equipment could be designed for use with AC or DC power lines.

What, you might ask, does all this have to do with isolation transformers? Under some circumstances, the lack of a power transformer can create a shock hazard. This hazard can be avoided by using an isolation transformer between the AC line and the transformerless device. An isolation transformer is a transformer that does not step the voltage up or down; its turns ratio is 1:1. Unlike an autotransformer, none of the windings are common to the primary and secondary.

My low budget isolation transformer consists of two identical transformers, connected as shown in the schematic diagram. The first transformer takes the line voltage and steps it down to 50 volts. The second transformer is connected backwards. That is, the secondary of the second transformer is connected to the secondary of the first transformer. The second transformer then steps the voltage up to approximately what the AC line voltage was to begin with. The advantage of using two transformers connected back to back is economy. Factory-built isolation transformers tend to be expensive. The disadvantages of this plan are size, weight, and efficiency. Two transformers are larger, heavier, and less efficient than one transformer would be.

CAUTION: When connecting two transformers as shown in the schematic, make sure they both have the same primary and secondary voltage ratings. If possible, use two identical transformers. Also, do not exceed the power capacity of the secondary winding of the first transformer. For example, the secondary winding on my transformer has 50 volts across it, and is good for at least 10 amps. But, I don't consider this to be a 500 watt transformer. Remember, nothing is 100% efficient!

John

**WARNING!!**

Be extremely careful when wiring and using this or any other circuit connected to the AC power line.

* Use transformers of known quality and current capacity.
* Use an AC voltmeter to verify input and output voltages before connecting this device to another circuit.
* Build this device in a metal box to prevent accidental contact with potentially lethal voltages.
* Use a three-wire line cord on the input and use three-wire outlets on the output.

Safe operation of this circuit will depend on safe wiring techniques. If you have questions about this project, please write to the author.

# New Products



## AMERITRON AL-82 FULL LEGAL POWER LINEAR AMPLIFIER

Ameritron, the company that is famous for manufacturing outstanding quality linear amplifiers at reasonable prices, announces the release of their latest model - the Ameritron AL-82.

The AL-82 is a full legal output power linear amplifier, using two 3-500Z transmitting tubes.

Competing amplifiers using two 3-500Z tubes can not deliver full legal power on all modes, because they do not use heavy enough power transformers to drive the 3-500Z tubes to optimum output. The AL-82 corrects this problem, and still keeps the price at a reasonable $1995.00 retail.

The AL-82 features dual illuminated meters. The Grid Current meter gives a constant reading of grid current, the most reliable indicator of overall amplifier performance. The multi-meter displays plate voltage, plate current, peak RF output power, and drive power/ALC.

An 1800 watt continuous commercial service rated hypersil transformer is standard, along with heavy duty rectifiers in a full wave bridge supply with computer grade capacitors.

Two bias settings allow either RTTY and CW operation at 1500 watts of continuous output at nearly 70% plate efficiency, or low distortion 1500 watt PEP SSB, SSTV, or AM output.

Silver plated tank components provide high efficiency operation above 20 meters. The Pi-L tank circuit permits full impedance matching over the entire 160 meter band. The tuning capacitors and bandswitch have a 35% safety factor to virtually eliminate tank circuit component failure, even under adverse operating conditions.

The cooling system keeps the components and 3-500Z tubes safely below the manufacturer's ratings, even while operating continuously at 1500 watts output with a steady carrier. The filament supply has inrush current limiting to insure maximum tube life.

Complete shielding and by-passing helps prevent TVI and RFI at the high power levels developed in the AL-82.

The AL-82 covers 160, 80, 40, 20, and 15 meters, and gives 80% rated output on 12 and 17 meters. In addition, it can be modified to cover 10 meters upon presentation of a proper amateur license. An export model is also available.

To order, contact any Ameritron dealer. For more information, write Ameritron, 921 Louisville Rd., Starkville, MS 39759, or call Ameritron at (601) 323-9715, or FAX (601) 323-6551.

**- Ameritron news release**

# It Was Touch and Go for Ham Fees

Fees for Amateur Radio licenses are dead, and the American Radio Relay League slew them!

As a result of an intensive Capitol Hill lobbying effort on the part of the American Radio Relay League (ARRL), Congress has permanently abandoned the idea of charging radio amateurs fees for their licenses, license modifications, and upgrades.

It was the ARRL's Congressional relations consultant, Chwat-Weingerd and Associates, that originally alerted the League that Congress was considering the imposition of fees on amateur licenses as part of the omnibus Budget Reconciliation Act of 1989. Congress figured that charging amateurs for their licenses would generate between 42 and 45 million dollars toward reduction of the deficit. None of the money collected was to go directly to the Federal Communications Commission (FCC) to help support and regulate the Amateur Radio Service, and this alone angered many hams.

Also concerned were the Volunteer Examination Coordinators (VECs) who, along with the Volunteer Examiners working under them, would logically become the ones collecting these fees. Many wondered what would happen to growth in the Amateur Radio Service, especially among youngsters, when it was projected that the total cost of stepping up from Novice to Extra could cost in excess of $200 if fees were imposed. The VECs also didn't want to double as tax collectors.

Under the guiding hand of Executive Vice President Dave Sumner, K1ZZ, and Washington Liaison Perry Williams, W1UED, the ARRL began an intensive effort among Washington legislators, in the hope of minimizing the impact that the imposition of fees might have on the ham community. The League quickly went on record opposing any fees in excess of the actual cost of administration. But, when the House of Representatives suggested that the fee for amateur licenses be $30, the campaign against the ham radio tax went into full swing.

The first member of Congress to show open support for Amateur Radio in its campaign to defeat the fee issue was Senator Carl Levin (D-MI). On October 3, after meeting with representatives of the ARRL, Senator Levin addressed the Senate to voice his opposition. He made note that the Amateur Radio Service was the only non-profit public service operation to be singled out for taxation, and called the imposition of the fees "unfair" to radio amateurs, who volunteer their time and equipment to public service.

Over Levin's objection to fees for amateur licenses, the Senate passed its own version of the Budget Reconciliation Act on October 5 that recommended a $35 fee be charged hams for their licenses - five dollars greater than what was being requested by the House of Representatives. As there were many differences between the House and Senate versions of the budget bill, the next step was for reconciliation before a joint House-Senate committee. This gave the ARRL time for an even greater effort on Capitol Hill.

Williams made many trips to Washington and met with staff of key legislators working to iron out the differences between the House and Senate bills. During this time, Senator Levin also continued his opposition to the inclusion of fees for amateur licenses, with much of the joint effort aimed at Senator Ernest Hollings (D-SC), who heads up the Senate Committee on Commerce, Science and Transportation. Hollings, whose home state had received massive assistance from Amateur Radio in the wake of Hurricane Hugo, was considered a key to minimizing or eliminating the Amateur Radio fee from the bill. The two conferred about October 13, at which time Hollings notified Levin, and subsequently the ARRL, that he would stand with the ham radio community.

For Washington lawmakers in favor of the tax on ham licenses, the issue could not have surfaced at a less opportune time. As noted, it came hot on the heels of Hurricane Hugo - a disaster of giant proportions, and one that put the words "ham radio" on the minds of most everyone in the United States. The news media centered themselves around the work of hams during that disaster. Every TV and radio station seemed to have cameras or microphones at the home of some ham operator for a report every few hours. Follow-up stories in national news magazines and newspapers were very kind to the amateur fraternity. Amateur Radio operators were seen as heroes, and hams were astute enough to use the power of this perception against the fees.

At the urging of the ARRL, thousands of letters in opposition to the tax began to pour into legislators' offices. Most were from radio amateurs, and all were opposed to fees. Hams were also heard regularly calling into radio talk shows to accept the praise of a grateful nation and, at the same time, to explain the risky position Congress was placing it in by taxing the volunteers of Amateur Radio.

Then, only four days after the meeting between Senators Levin and Hollings, came the great California earthquake that once again put radio amateurs into the public eye. And again, radio and television turned to our fraternity for initial information about the destruction occurring in outlying areas. The amateur communications networks - especially packet networks - performed amazingly well, with the result that more and more attention was given radio amateurs. They handled a still-uncounted number of messages during the time that power and communications were out. Again, the news and talk shows were filled with the words "Amateur Radio." Word was getting back to Capitol Hill that these new fees on amateurs would be very unpopular.

While the public clamor was building, the ARRL's Williams, joined by other volunteers, kept up the pressure in the nation's capital city. Budget reduction had become the hottest topic in Washington since the Iran-Contra scandal, and any means of shaving the budget deficit would seem to be a shoo-in. If the ARRL let up pressure now, there was a good chance that a $30 to $35 or even higher fee might wind up in the final measure. Work on the bill and the lobbying efforts of the ARRL continued right up until the evening of November 21, when Congress passed the Budget Reconciliation Act without any fees for amateur licenses included. Those supporting ham radio and the work it does then paused to give thanks as the nation took a few days off for the Thanksgiving holiday.

- **Westlink Report**, December 8, 1989

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## Eau Claire Amateur Radio Club

*Bob Fallis, W9BAR, Secretary*
*1851 McKinley Road*
*Eau Claire, WI 54703*

The next meeting of the Eau Claire Amateur Radio Club will be held on January 9th at 7:30 p.m. in the Parks and Recreation Building, 1300 First Avenue.

We held our annual Christmas Party Tuesday evening, December 12th. This is the one event in which we get together with our families and renew old friendships and make new ones.

At approximately 6:30, Jerry Marx, NG9A, our president, interrupted our fellowship for a short business meeting. We dispensed with the reading of the previous minutes and the financial report. Elections were held. In 1990, our officers will be as follows: President, Bill Jablonske, W9NNS; Vice President, Jerry Marx, NG9A; Secretary, Carl Searing, W9NW; and Treasurer, Don Alm, K9UXP.

Bill, W9NNS, passed out information on our new digipeater. If you missed the party, and would like more information on our packet operations, get in touch with Bill.

After the meeting, more fellowship and lots of food.

All members are reminded that our program for the January 9th meeting will feature Jim Rassbach, who will speak on cellular telephones.

Carl, W9NW, and his crew will be giving examinations again on January 13th.

Have a HAPPY holiday season!

Bob Fallis, W9BAR, Secretary

# The Communicator

## News of Greater Taylor County Area Amateur Radio Events and Activities

Mike Schoenfuss, N9GHZ, Editor, P.O. Box 401, Abbotsford, WI 54405 • Phone (715) 223-3996

### MONTHLY CLUB MEETING - TAYLOR COUNTY AREA AMATEUR RADIO CLUB

Thursday, January 11th. Location: Emergency Government meeting room, basement of the sheriff's annex to the Taylor County Courthouse, corner of 2nd and Ogden Streets, Medford, Wisconsin. The meeting starts at 7 p.m.

### AGENDA AND PROGRAM FOR JANUARY MEETING

Annual election of club officers.

Progress reports on the W9QHI/R repeater and WIMED/N9GHZ-1 packet node projects will be presented.

Also, further discussion on the major project involving Amateur Radio with the White Pines District Boy Scout Camporee, to be held in Gilman, Wis., in May, 1990.

Following the business meeting, a videotape will be shown, either another segment of a videotape on Amateur Television (ATV), or a videotape of the Air Force GWEN tower meeting held in Medford on November 30th, if time permits.

### CLUB NEWS

Attendance at the December meeting was as follows: N9GHZ, KA9WDX, KB9BLV, N9GEN, N9FZD, KA9UXN, WD9FWP, and W9QHI. Treasurer WD9FWP reported no change in the balance in the treasury from last month.

The membership passed a motion to purchase Christmas gifts for Midway Telephone Company and Northcentral Technical College, to express our appreciation for their cooperation with and support of the club and Amateur Radio in general, and providing classroom space and tower space for our repeater and packet node.

Following adjournment of the meeting, a videotape, made via Amateur Television, of the annual Abbotsford Christmas Parade, was shown. Those in attendance enjoyed homemade Christmas cookies courtesy of N9GHZ, as well as coffee and hot chocolate.

All club members are reminded that 1990 club/repeater dues are again due. The following is a list of those who already have their 1990 dues paid: N9FZD, WD9C, N9GEN, W9LEE, WD9ASX, KB9BLV, KA9WDX, KA9WDC, WD9FWP, KE9LX, N9IDW, N9GHZ, WA9YCT, KE4FE, KB9AMZ, KA9UXN, N9FZS, KA9SMQ, and W9QHI.

A new roster of Taylor County Area amateur radio operators should be coming out during the early part of 1990.

Gene Crevier of Rib Lake has contacted N9GHZ and is interested in getting an amateur radio license. He had checked out the books and videotape that the club had donated to the public library in Rib Lake. Gene is 19 years old, and had attended Rib Lake High School with silent key Jody Campbell, KA9UXM. He will not be able to attend a Novice class at this time, but if he is interested, KE4FE will work with him. N9GHZ sent him a copy of Smoke Signals and a current club roster, and will also send him information on ordering current study guides, code practice tapes, etc.

### TAYLOR COUNTY AMATEUR RADIO EMERGENCY SERVICE NEWS

From Mike Schoenfuss, N9GHZ
Taylor/Clark County ARES
Emergency Coordinator

Don't forget to try to check into the weekly ARES net held Wednesdays at 8:30 p.m. on the Medford repeater (147.75/-147.15). You're also encouraged to volunteer for net control duty for the net. N9GHZ will try to get a current copy of the net control script out to all Taylor County area hams with a Technician license or higher, in the near future.

**Abbotsford Christmas Parade ARES Communications Report:** All in all, the parade went pretty smoothly this year. Attendance was way down over last year, primarily due to the colder temperatures and gusty winds, but that resulted in fewer crowd control problems for us. Instead, we had a few reports of engines and motors not starting, but they were quickly resolved right at the parade staging area. No lost children or parents reports this year!

We appeared to have fewer amateur radio operators on hand this year, but we did have enough to get by. If there had been more available, there would have been assignments available for them.

The public address system worked much better this year than last. You could actually hear the announcer's voice! A new high-impedance microphone was used, as well as changing a cable and an adapter on the PA system itself. This year, we also had a professional announcer, from the radio station in Medford, doing the commentary for us.

The use of fast scan Amateur Television was also a big success. An announcement was made over the nursing home's PA system shortly before the start of the parade, and approximately 20 residents gathered in the main lounge to watch the parade on the large TV set there. We do not know how many additional residents may have been watching on TV sets from their own rooms. At the end, we received a round of applause for our efforts.

A beam antenna had been placed on the TV antenna tower at the Continental Nursing Home. The signal was fed into an ATV downconverter, which output the signal on TV broadcast channel 3. The signal was then fed into the home's master TV antenna distribution system so that all TV sets in the building would pick up the parade on channel 3. The equipment at the transmitting end was located in the National Guard armory, and consisted of a home-brew 10 watt ATV transceiver, a VCR for recording the parade directly from the camera, a TV monitor so that those inside the armory could watch the parade, and some audio mixing equipment, to provide audio from both the street and for an announcer, who was unable to make it. The camera, lighting, and a boom mike were located on the second floor balcony of the armory. A beam antenna was located on a TV tower two buildings down from the armory. A video character generator was used to provide an opening title and closing credits, as well as the required station IDs.

Plans are already in the works for next year, to expand the ATV system to include receiving sites at two local elderly housing projects. Special thanks go to N9IAB, AD9W, and KC9NW for providing equipment for the ATV system, and to N9IAB and AD9W for handling the setup and operation of the equipment. Thanks also to the following, who either provided the use of their radios, or directly participated in providing ARES communications for the parade: KB9BLV, KE9LX, N9GEN, N9FZD, WD9FWP, NZ9U, N9IFA, N9GHZ, WA9ZCO, KA9UXN, KA9HQE, and Roland Sacho, Taylor County Emergency Government Director.

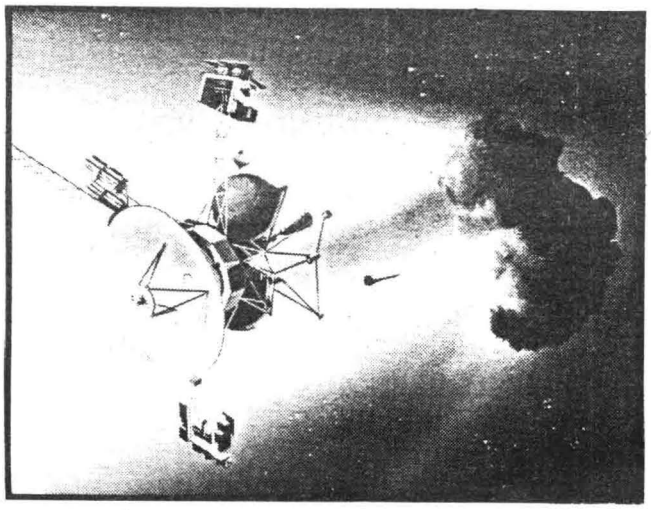
### 147.75/15 MEDFORD REPEATER (W9QHI/R)

W9LEE went to the repeater site recently, and put the automatic electric heating tape around the chassis of the repeater, which appears to have solved the problem of the repeater remaining keyed up and timing itself out. The problem first showed up when the outside temperature started dropping in late October. W9LEE will return to reset the squelch control on the receiver, once the temperature has been stabilized.

At the December club meeting, the membership present passed a resolution to try a pair of the new Motorola Radius radios, on a loan basis, for both the repeater

(Please turn to page 16)

# WA9BZW and Student Attend NASA Program



CRAF (Comet Rendezvous Asteroid Flyby)

Al Hovey, Jr. (WA9BZW), an eighth grade science teacher in the Shawano-Gresham school district, and Eric Jensema, a student in Al's advanced science class, recently attended a NASA pilot educational program. It was held at the Jet Propulsion Laboratory in Pasadena, California. The four-day workshop included twelve teachers and their students from around the U.S.

NASA recognizes the fact that not enough people are entering science and technology as a career, and the growing science illiteracy in the wake of the technological explosion. This pilot program at JPL was organized by Jeff Briggs, the director of Solar System Exploration for NASA, and members of his staff, as well as Science Applications International Corporation. The students and teachers invited for the pilot program will be tracked and kept informed of exploration, as well as having the chance of getting together in the future.

After reviewing where we have been and where we hope to go in the future in unmanned solar system exploration, the group concentrated on the CRAF/CASSINI project. All aspects of both missions were studied from finances, objectives, instrumentation, and design, to launch and followup. These projects not only involve NASA, but the European Space Agency and the Federal Republic of Germany.

CRAF (Comet Rendezvous Asteroid Flyby) will send a Mariner Mark II class spacecraft (intended for flights in the 1990s) to the Comet Kopff in August, 1995, arriving there in August of 2000. When it arrives, it will send a penetrator into the comet and then fly in formation with the comet, studying it. The comet rendezvous will allow study of matter that scientists think is the original, relatively unchanged material left behind when a cloud of dust and gas collapsed to form the solar system 4.6 billion years ago.

Cassini, named after an early astronomer who discovered divisions in Saturn's rings, will also use a Mariner Mark II spacecraft. As in all missions planned in the 1990s and beyond, it will study comets and asteroids on its way to Saturn. It will be launched in April, 1996, and arrive at Saturn in October, 2002. In January of 2003, it will deliver a probe to Titan, a satellite of Saturn.

Previous missions just flew by objects in space; these will orbit and land, giving us much more detailed information.

This intense workshop was science in the making. The 1990s should be an exciting decade as we learn more about our solar system, and so, more about planet earth.

---

EDITOR'S NOTE: I'm not certain, but I believe the probe which the Cassini spacecraft will deliver to Titan will be built at the University of Wisconsin/Madison.


# FOX CITIES AMATEUR RADIO CLUB

## -- HAMFEST "90" --

**Saturday, February 24, 1990**

**At Sabre Lanes -- 1330 Midway Road, Menasha, Wisconsin**
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**Talk In: 146.16/76 And 144.55/15**

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Exit on Hwy 441 to the East and follow 441 across bridge to Racine Road
Left on Racine Road to Airport Road
Right on Airport Road to Appleton Road (Hwy 47)
Left on Appleton Road to Midway Road
Right on Midway Road - **Sabre Lanes** is on left side before Chain Drive

---

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RIVERLAND AMATEUR RADIO CLUB
ONALASKA WIS.
SPECIAL SERVICE CLUB
Bill Wood, WB9VYI
Secretary
Route 1
LaCrosse, WI 54601

Greetings.

Our President, Dick Low, KØJYB, called the meeting to order at 7:30 p.m., December 5th, at the Onalaska Civic Center.

The reading of the last month's minutes were called for, given, and approved, as written in the Badger State Smoke Signals. The treasurer's report was presented next, then approved.

Dick announced 'potential' changes in our Constitution and Standing Rules that need to be discussed, presented in writing, for voting on at our next regular club meeting. He then asked Charlie Burch, KA9UUK, to address some of these, and Charlie brought to our attention several changes that have taken place over the last year or so, then made suggestions for our consideration. Then he called on Craig Goldbeck, N9ETD, who then presented his slate in writing for voting on at the next meeting.

Written proposals are as follows (there were two lists given, and are reprinted here entirely):

## PROPOSED AMENDMENTS TO THE RIVERLAND ARC CONSTITUTION

Art. III Sec. IV

Where it states Sec.-Treas., change to read Treas.

Art. III Sec.V

Where it states Sec.-Treas., change to read Sec.

Art. III Sec. VIB

Where it states Sec.-Treas., change to read Sec.

Art. IV Sec. I

Where it states Sec.-Treas., change it to read "a Sec. and a Treas."

(List as read at our last meeting for standing rules.)

Art. I Sec. III

Delete the whole section, or have it state the secretary and treasurer shall be exempt from paying dues in consideration of the amount of time and effort it takes to carry out their duties.

Art. III Sec. III

Change it to read "the secretary shall maintain an accurate record of all meeting proceedings, he shall keep a roster of all membership, submit applications for membership at regular meetings."

Art. III Sec. IV

The treasurer shall keep all records of monetary transactions within the club, paying club incurred expenses as they come due from club funds, after having authorization from the membership.

Art. IV Sec. II

Where it states Sec.-Treas., change it to read Treas.

(Copies will be made available at the next meeting.)

Kent Helman, W9LZQ, motioned, and Rick Williams, KV9U, seconded this, to vote on the constitutional changes and the standing rules changes at the next meeting. All were in favor.

Charlie made, and Kent seconded, the motion to change Article V Sec. II to read "The December meeting shall be designated as the annual meeting, instead of the Jan. meeting." All were in favor of this, too.

Dick announced the plans for our "annual holiday party" as follows: Christopher's, on Sat. night, Jan. 13th, at the Valley View Mall, entrance No. 3, by Radio Shack, at 6:30 p.m.

Further discussion was had as to our using the Red Cross building for a potential club house; at this time, these plans are not very suitable for our wants.

Kent mentioned the club could set up a portable station in a van or trailer, stating this could then be used for ARES, etc., and then recommended a committee could be formed to pursue this. Larry Kapp, KB9DER; Karl Simonson; and Kent have volunteered to tackle this subject.

Discussion was then held as to club ownership of equipment, and a need for inventory lists, so we will know exactly what we have and where it will be located. Possibly we will have a specific person or a committee in charge of this; of course, this will be necessary if we have a club station.

Van Elston, WA9FIO, reported on the removal of the digipeater and placing it back in Nodine, where it is working well. The 97 repeater receiver's front end was overloading during some of the other signals present on the site, namely the county on the channel 31 towers. Several adjustments and working on the duplexer helped eliminate this.

Van also told us of several plans or recommendations for the near future. In March, they would like to shut down the repeater for a week for various technical 'operations' and adjustments, then construct and add a signal strength reporting device to the receiver to be controlled by our touch tone pads. Also, a general inspection by the technical committee at the site.

Dick Kleppe, KØKTP, motioned to sell the "River Lan Packet Association" group an antenna, coax, and two of the cavities they are using, for $1. Walter Altus, WD9GCR, seconded this, and the majority accepted the move.

Bruce Bjerstedt, K9CUT, announced the Girl Scouts had contacted him, inquiring about amateur radio. Bruce contacted Jeanne Pavela, KD9TR, who addressed the group of 21 young ladies from Emerson's 4th Grade Girl Scout troop. After this, they broke up into three smaller groups, and went to Jule Kish's (KA9UJL), Nook Bentzen's (K9EGO), and Bruce's QTHs for a demonstration of our hobby. Several excellent contacts were made, including some DX, which we're told made some good impressions.

Walter moved to raise the club dues to $20, Kent seconded it, and the motion carried.

Discussion was had on the election of officers, and our need to nominate and vote at our next meeting.

Dick Kleppe mentioned again his need for keys and C.P.O.s for some young people he is teaching; he would return these when he is through.

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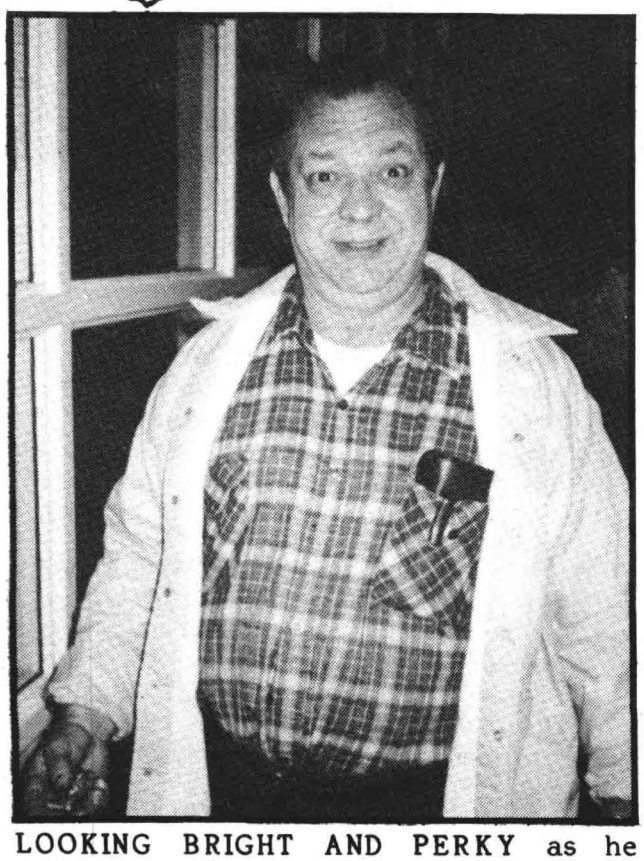
## MEMBERS AND GUESTS PRESENT

| | |
|---|---|
| Karl L. Olberg | W4ST |
| Karl E. Simonson | |
| Craig A. Goldbeck | N9ETD |
| Tom Speropulos | N9IGS |
| Larry Kapp | KB9DER |
| Joe Mezera | WA9SOQ |
| Tom Gromacki | KB9BIS |
| Ron Reed | KD9OY |
| Phil Uehling | W9UP |
| Van Elston | WA9FIO |
| Arby Boomer | WF9T |
| Bill Kleinschmidt | N9FDE |
| Kent Helman | W9LZQ |
| George Kroner | KE9PL |
| Curt Phelps | KA9YPF |
| Ernie Gershon | K9ZVU |
| Art Osborn | WØJDC |
| Hugh Barker | KAØEJZ |
| Jim Burcum | K9LBX |
| Dick Konrad | K9DXO |
| Greg A. Miller | KA9FOZ |
| Dick Kleppe | KØKTP |
| Dick Low | KØJYB |
| Rick Williams | KV9U |
| Jule Kish | KA9UJL |
| Bob Selbrede | KA9EZR |
| Gary Webb | NI9V |
| Roger Reader | KA9BKK |
| Walter Altus | WD9GCR |
| Jack Yoshizumi | W9KTD |
| Andrew J. Dinger | KAØSDT |
| Fred Sorenson | NØHRN |
| Duane Fruechte | W9HWQ |
| Steve Pavela | KA9TSW |
| Charlie Burch | KA9UUK |
| Bruce Bjerstedt | K9CUT |
| Bill Wood | WB9VYI |
| LaVonne Wood | |

Respectfully submitted:

Bill Wood, Sec./Treas. R A R C

## HERE and THERE



LOOKING BRIGHT AND PERKY as he smiles for the camera is Matt Helt, WA9-EKQ, captured on film recently in Madison.

:-----:

WAIT A SECOND! We are going to have to wait one more second before officially entering the 1990s. The National Institute for Standards and Technology is inserting a leap second into the WWV time broadcasts at 23 hours 60 seconds UTC December 31. The time adjustment was recommended by the International Time Bureau, and is being made to keep International Coordinated Universal Time in close agreement with UT-1 or Astronomical Time.

– WWV via State of the Arts,
Allen County Amateur Radio
Technical Society, Ft. Wayne, IN

:-----:

ON THE MOVE: Al Johnson, WB9FMU, wife Nancy, along with Nate and Lynx Siamese cat Mo, have moved to Washington State. In the Rock River Radio Club newsletter, Al reports making 10 contacts on 2 meters on his trip. His new apartment has antenna restrictions he hopes to work around; he also plans to change to an AA7 call. His address is 13101 S.E. 240th St., Apt. F203, Kent, WA 98031.

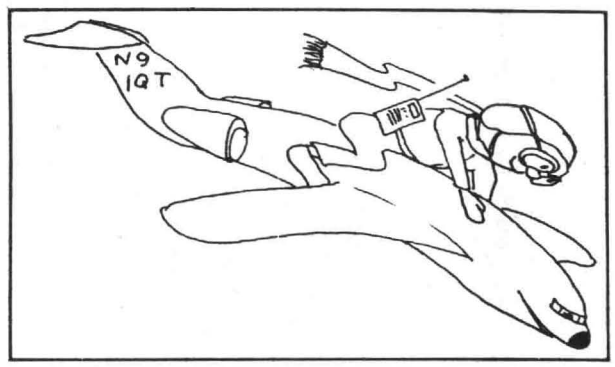
(Thanks K9GDF)

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# JET PILOT HAM IS ABOVE US ALL




Randy Fahrenkrug, N9IQT, of Hales Corners, Wisconsin, has been flying airplanes since he was 14 years old. Actually, he got his airplane pilot's license long before his automobile driver's license. To emphasize the point, Randy says, "I flunked the driver's test the first time 'cause I couldn't parallel park."

Starting off his aviation career with single engines, then graduating to flying dual engine charters, and as an ultimate goal for the past four years he's been flying 727 jets as First Officer, Randy is a very capable pilot. It wasn't too many years ago that he got his Amateur Radio license, KB9BXC, and then upgraded to N9IQT. Now, Randy can combine two favorites, flying and hamming.

When asked about the advantages of being a commercial pilot, Randy replies, "The incredible sunrises and sunsets, it's a beautiful and colorful panorama view up there that can't be equaled from the ground. Also, at night, when we turn down the cockpit lights, we see the Milky Way, lots of stars, and shooting stars. Sometimes, while flying in Canada, we see colorful aurora displays, bright enough to read a newspaper by." Randy thinks a moment and then adds, "Seeing passengers leave your plane and re-unite with their families and friends; that feeling you had some small part in bringing them together again is also pretty spectacular. Once, a nervous passenger, fearful of airplanes, thanked me and confided, 'This wasn't so bad' at the end of our smooth flight."

Randy works three days on and three days off at American Air Lines, never more than 14 hours in a row, and only gets paid for the time when he's in the air. Nonetheless, he does get 10 minutes pay for every hour and a half during long delays on the ground for certain exceptions. "We usually work with the same flight crew for a month and then rotate You can get to know quite a lot about your coworkers when you talk with them for a month," Randy says with a smile.

Each 727 has three cellular telephones, and passengers can use them if they have a credit card. "We also have something called ACARS, which simply is a packet radio that we use to get weather, gate information, fuel schedules, and operating status from the ground." Regarding radios aboard 727s, N9IQT mentions, "The planes also have amateur band radio capability that Ham pilots can use, when time and conditions permit, to make a few contacts." He continues, "Making QSOs and hearing pileups of ground stations wanting to work us while we're aeronautical mobile is exciting."

While he's not on duty, N9IQT is sometimes heard on the 146.91 Milwaukee repeater, and recently gave an interesting slide tour program for the repeater group about 727 cockpit electronics. Randy is a very experienced pilot, with down to earth common sense and skill, and no matter how many miles he may travel, he will never get ahead of himself.

– Rich Regent, K9GDF
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# FCC Seeks Input/Assistance In Resolution Of Amateur Dispute

On October 11, Federal Communications Commission Special Services Division Chief Robert H. McNamara wrote to a number of individual amateurs, seeking information and comments on phone patches, information bulletins, and over-the-air telegraphy practice. The letter requested information and insight that could help bring a resolution to "the unfortunate continuing over-the-air dispute that takes place on the amateur 20 meter band....," a dispute "....which is jeopardizing international goodwill - a fundamental principle of the rules for the amateur service in the United States...." One recipient of Mr. McNamara's letter was W1AW Trustee John Lindholm, W1XX.

The American Radio Relay League's response was submitted on November 15, by Counsel Chris Imlay, N3AKD, on behalf of Mr. Lindholm, as well as the ARRL. It begins with the pertinent background information:

"Your letter correctly characterizes as unfortunate the over-the-air disputes that have arisen concerning certain operating practices that have come to be regarded as controversial. However, the League knows of no particular reason to include 'telegraphy practice' in the category of operating practices. As will be discussed, the code practice transmissions from station W1AW continue to be widely used and appreciated.

"....communications on behalf of third parties has been a part of Amateur Radio from its earliest beginnings in the United States. The very basis for the formation of the League in 1914 was to organize amateurs to relay messages on one another's behalf in order to overcome the limited range of the amateur stations of the day.

"It was not until the 1930s that international limitations were placed on amateur traffic, at the insistence of European governments whose telecommunications monopoly was a source of considerable revenue. It was not until 1972 that the FCC specifically prohibited 'business communications.' The imposition of these restrictions was itself quite controversial, because it put amateurs, for the first time, in the position of having to evaluate the content of the messages they were relaying.

"Other background essential to an understanding of the issues raised concerns the concept of interference within the Amateur Radio Service, and the extent to which operators are obliged to avoid interfering with one another. Willful and malicious interference is a violation of the rules, but interference that is merely a byproduct of normal operating is not. In the crowded HF amateur bands, avoiding causing unnecessary interference to others is extremely important to efficient operation; but a tolerance for interference and a willingness to cope with it as a fact of life is equally important."

With this as background, the League addressed Mr. McNamara's questions:

FCC: Is there a channel plan for the analog emission segment of each amateur service HF band?

ARRL: There is no channel plan; nor should there be, except in the very limited case where the operation of unattended stations may be authorized by an administration for good cause shown. The degree to which amateur stations can share the same or adjacent frequencies is dynamic: often, interference can be reduced to an acceptable level by making a slight adjustment in the operating frequency. This would not be possible in a channelized scheme.

FCC: What portion of the analog segment of each amateur band is being used by FCC licensed amateurs for domestic and international third party telephony communications? What is the general nature of these communications? How many phone patches are transmitted per day by band? What effect does the transmissions of such communications have on the Amateur Service? Why aren't other communication services being used for such communications?

ARRL: In general, domestic third party telephone communications are a relatively small part of the communications being conducted at any given time. Their effect on other amateur communications is minimal, except in the very limited instances when disputes arise as to the "right" of one station or group of stations to use a particular frequency. The League regrets that these disputes arise, since no amateur has a mutually exclusive right to operate on a particular frequency. Such disputes could often be avoided if the operators involved were more flexible in their choice of operating frequency.

There is a greater temptation to use Amateur Radio inappropriately for international than for domestic third party communications, but abuses can be addressed adequately through enforcement of existing regulations.

FCC: What portion of the analog segment of each amateur band is being by FCC licensed amateurs for information bulletin telephone communications? How many amateurs listen to these transmissions? How many bulletins are transmitted per day? What effect do these transmissions have on the amateur service? Why aren't amateur digital systems used exclusively for such communications?

ARRL: Station W1AW has transmitted brief informational bulletins using telephony for decades. It has been common practice for other amateur stations to conduct similar operations, usually on a localized basis, and usually as a part of a scheduled net or on some other limited, scheduled basis. Such bulletins are very important to the dissemination of timely and accurate information to radio amateurs. In recent years, there has been a trend toward amateurs receiving these bulletins via digital modes; however, not all amateurs have access to digital modes, and the telephony bulletins still serve a useful purpose.

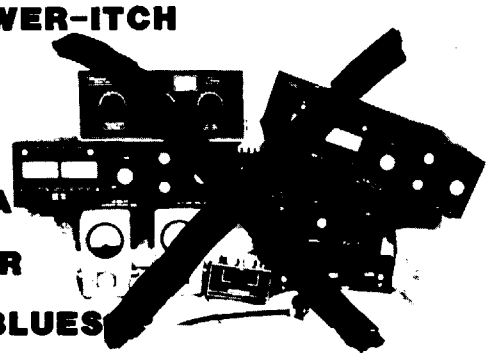
FCC: What portion of the analog segment of each amateur band is being used by FCC licensed amateurs for telegraphy practice communications? In view of the availability of recorded telegraphy training material, why are amateur service frequencies still used for this purpose?


JANUARY 4, 1983

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**ARRL:** W1AW transmits Morse code practice in four one-hour segments on weekdays, and three one-hour segments on weekends. While higher speeds are used in Code Proficiency Qualifying Runs, the W1AW transmissions concentrate on the speeds that are required to pass the examination elements for FCC amateur licenses. This service is highly valued, and well accepted in the Amateur Radio community.

Audio cassette tapes and computer programs are useful tools, but audio tapes can be memorized after they are used a few times, giving the user a false sense of accomplishment; computer programs require expensive equipment. Neither method provides experience in copying Morse code under actual on-the-air operating conditions.

**FCC:** Suggest a statement of practices that you believe should be followed by amateur stations transmitting third party communications, informational bulletins, and telegraphy practice.

**ARRL:** At the urging of FCC staff, the League in the mid-1970s developed the eleven-point "Phone Patch and Autopatch Guidelines" that appears in The FCC Rule Book (Eighth Edition) at page 13-15. These guidelines have stood the test of time, and are generally accepted as a useful supplement to the Commission's rules.

The League believes that the definition of the term "information bulletin" contained in the Commission's Rules should be strictly applied and enforced. Operators of amateur stations who cannot or do not wish to conform to these strict limitations may more appropriately seek licenses in the Broadcasting Service.

Finally, with regard to telegraphy practice, the only guidelines needed are to ensure that the purpose of the transmissions is to provide telegraphy practice and not to engage in one-way transmissions that otherwise would be illegal.

* The text should not be randomly generated, since such practice material is readily available via other media.

* The text should be taken from a published, readily available source to facilitate checking accuracy of copy.

* The text should relate in some way to Amateur Radio.

* The text should not be sent repeatedly.

Based on the response from ARRL and others, the FCC will consider its next steps in this on-going HF "dispute." Mr. McNamara says that possible alternatives range from FCC rule making that would ban all third party traffic on amateur frequencies to rules that would designate certain frequencies where only third party communications could be conducted.

**- The ARRL Letter,** published by the American Radio Relay League, Newington, CT 06111

# Ham License Plates - Correction

In our cover story in our last issue ("More Vehicles Eligible for Ham Plates"), we omitted one of the types now eligible: Motor Trucks. To be certain that we have all of the information correctly this time, the entire bill is reproduced below. We apologize for the omission. **- Editor**

**STATE OF WISCONSIN**

**1989 Assembly Bill 206**

**Date of enactment:** November 8, 1989
**Date of publication*:** November 15, 1989

# 1989 Wisconsin Act 54

AN ACT *to amend* 341.11 (4), 341.13 (2) and 341.14 (2) of the statutes, *relating to* special registration plates for holders of an amateur radio station license.

*The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:*

SECTION 1. 341.11 (4) of the statutes is amended to read:

341.11 (4) In the case of a vehicle registered on the basis of gross weight for which special registration plates have been issued under s. 341.14 (2), (6), (6m) or (6r) or for which personalized registration plates have been issued under s. 341.145, or motor homes, dual purpose motor homes, farm trucks or dual purpose farm trucks for which special registration plates have been issued under s. 341.14 (2), or dual purpose farm trucks for which special registration plates have been issued under s. 341.14 (6) or any motor bus, truck tractor or road tractor, the certificate of registration shall be displayed in a prominent place in the driver's compartment of the vehicle to which the certificate refers. Any person who operates and any person in whose name the vehicle is registered who consents to the operation of any such vehicle without the certificate of registration being so displayed may be required to forfeit not more than $200.

SECTION 2. 341.13 (2) of the statutes is amended to read:

341.13 (2) In addition to the matter specified in s. 341.12 (3), the registration plates for a vehicle registered on the basis of gross weight except a motor truck registered under s. 341.14 (6m) or 341.145 (1) (b), a dual purpose motor home, or a motor home, motor truck, farm truck or dual purpose farm truck registered under s. 341.14 (1), (1a), (1m), (1q), (1r) (a), (2) or (6r) or 341.145 (1) (a) or (c) or a motor truck or dual purpose farm truck registered under s. 341.14 (6) shall indicate the weight class into which the vehicle falls in a manner prescribed by the department. The gross weight which determines the registration fee for a motor truck registered under s. 341.14 (6m) or 341.145 (1) (b), a dual purpose motor home, or a motor home, motor truck, farm truck or dual purpose farm truck registered under s. 341.14 (1), (1a), (1m), (1q), (1r) (a), (2) or (6r) or 341.145 (1) (a) or (c) or a motor truck or dual purpose farm truck registered under s. 341.14 (6) shall be shown on its certificate of registration.

SECTION 3. 341.14 (2) of the statutes is amended to read:

341.14 (2) Upon compliance with the laws relating to registration of automobiles ~~and~~, station wagons, and motor homes; motor trucks, dual purpose motor homes and dual purpose farm trucks which have a gross weight of not more than 8,000 pounds; and farm trucks which have a gross weight of not more than 12,000 pounds, including payment of the prescribed ~~fee under s. 341.25 (1) (a)~~ registration fees therefor plus an additional fee of $10 when registration plates are issued accompanied by an application showing satisfactory proof that the applicant is the holder of an unexpired amateur radio station license issued by the federal communications commission, the department shall issue registration plates on which, in lieu of the usual registration number, shall be inscribed in large legible form the call letters of such applicant as assigned by the federal communications commission. The fee for reissuance of a plate under this subsection shall be $10.

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* Section 991.11, WISCONSIN STATUTES 1987-88: **Effective date of acts.** "Every act and every portion of an act enacted by the legislature over the governor's partial veto which does not expressly prescribe the time when it takes effect shall take effect on the day after its date of publication as designated" by the secretary of state [the date of publication may not be more than 10 working days after the date of enactment].

# Here's Lookin' At Us

Our cover photo this month is of most of the State of Wisconsin, as seen from low earth orbit. The northernmost part of the state is not in the frame. Parts of eastern Minnesota and northeastern Iowa are visible, as is a small portion of Lower Michigan, visible at the lower right side, jutting into Lake Michigan. Just a bit of northern Illinois is at the bottom. The Mississippi River can be seen toward the left side of the frame. Lake Winnebago is the large body of water just to the right of center. Petenwell and Castle Rock Flowages, on the Wisconsin River, are just to the left of center, and the four lakes in the Madison area are about 1/3 way up from the bottom, just left of center. Lake Wisconsin is just north-northwest of Madison, and Baraboo (home of Badger State Smoke Signals!!) is about 10 miles north of Lake Wisconsin. **NASA photo**

# The Communicator

(Continued from page 10)

receiver and transmitter, in the near future. The general concensus was that we should try to install them while the cold weather is still around, so that we can see what effect that might have on their operation and performance. We will try them out for a month or so, and if they improve our repeater coverage and performance, we can consider purchasing one or both of them, either immediately or at some future date.

No additional progress has been reported in the transferring of the repeater from its present repeater cabinet into the new cabinet presently located at W9LEE's residence. The duplexer presently in use on the repeater will not fit into the present cabinet. The courtesy tone board has also not yet been installed.

### 144.67/145.27 DORCHESTER REPEATER (WA9ZCO/R)

A reminder to all that the RAIN Dial-Up Service weekly amateur radio news bulletin can be heard on this repeater every Wednesday evening at 8 p.m.

### N9GHZ—1 (WIMED) PACKET RADIO NODE

The node was recently installed at Midway Telephone Company in Medford. Initial reports indicate that it appears to provide a reliable connection to only the WIAUW node at Wausau. Connections to WIEAU at Eau Claire, to the west, WIPKF at Park Falls, to the north, and WISTE at Stevens Point, to the south, are marginal, at best. Some additional work will be done to attempt to make those nodes accessible from WIMED. The receiver in the older Motorola radio being used appears to be a bit "weak", and the squelch control is not very good. The radio may be replaced with a newer Motorola transceiver in the near future.

There are also some RFI problems at the present node site. A cavity filter(s) may be tried to correct some of those problems.

The SWR is also a little high, just over 2:1, and will be looked into as well.

The node is drawing .16 amps DC in receive. Output from the Motorola radio is 14.5 watts, drawing 3.43 amps, and final output from the RF Concepts amplifier is 140 watts, drawing 26.7 amps.

### NOVICE LICENSE COURSE

N9GHZ has not yet heard from the Northcentral Technical College campus in Medford as to whether a classroom is available for us, and whether they are scheduling a class for us in January. A follow-up phone call will be made. If a classroom is not available starting in January, we will arrange to hold the classes in the Emergency Government meeting room at the courthouse in Medford.

If you know of anyone who has shown some interest in Amateur Radio, now is the time to start working on them, and encourage them to sign up for the course.

A news release should be sent to area newspapers sometime in December, to announce and plug the course.

### WHITE PINES DISTRICT BOY SCOUT CAMPOREE

As announced at the December club meeting, the Spring Boy Scout Camporee for the White Pines District will be hosted by the Lublin Boy Scout Troop, and will be held in Gilman Park in Gilman. N9IFA, who is an Assistant Scoutmaster for the Lublin Troop, suggested Amateur Radio as the theme for the Spring Camporee, and the rest of the committee was in full support of the idea.

The theme for the Fall 1989 Camporee was "Fur Trappers of the 1850s". That camporee was attended by about 535 scouts. The Spring 1990 Camporee will be held the second weekend in May, and it is expected that there will be approximately 500 Scouts in attendance, representing 20 different troops from the Chippewa Valley Council, White Pines District. This includes troops from communities in Chippewa, Clark, and Taylor Counties.

There is an enclosed building in the park which would be provided for our use. Setup would take place on Friday evening, and the exhibits would run from 8 a.m. to 6 p.m. on Saturday, and from 9 a.m. to 12 noon on Sunday. Preliminary plans include a working HF station, 2-meter packet radio station, 2-meter rig for making repeater contacts, and fast scan Amateur Television. There will also be handouts, QSL card and other displays, videos shown, and hopefully some hands-on activities for those attending, in addition to the on-the-air contact opportunities.

The camporee is also open to the general public, and will likely be publicized ahead of time.

It is hoped that we will have enough volunteer help with this project within our own club but, if necessary, we could approach the next closest club, located in Eau Claire, for assistance and additional manpower. Mark your calendars now for the dates, and keep them open if you can: May 11, 12, and 13. This is an excellent opportunity for us to reach a large group of young people, to show them what Amateur Radio is all about, and possibly interest at least some of them in pursuing it as a hobby.

- From N9GHZ, Editor

## *Beginners Classes Scheduled in Baraboo*

Persons in the Sauk County area who are interested in becoming Amateur Radio operators are invited to attend a class series, sponsored by the Yellow Thunder Amateur Radio Club. The classes, providing the necessary instruction to qualify beginners for the Novice Class license, will begin with an informational meeting at 7 p.m. Tuesday, Jan. 16, 1990, in Room 14 of the Baraboo Civic Center, 2nd and Ash Streets. For more info, call 608/356-3112, 608/727-2109, or 608/742-3560.

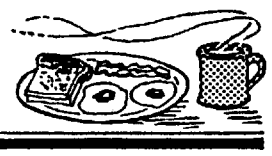
# ARRL to Seek Preemption

(Continued from front page)

possession or operation by licensed amateurs of amateur radio equipment having incidental capability to receive frequencies outside of the amateur bands. The request is expected to get widespread support from other public service oriented groups that use the capabilities of amateur radio, including the Civil Air Patrol, mountain search and rescue teams, and REACT. Opposition is expected from states and municipalities which want more control over radio communications in their geographic areas.

**- The Westlink Report**

## *Traveling the* HAM & EGGS *Circuit*



The Sheboygan County Radio Club has breakfasts every Saturday at 8:00 a.m. at four different locations during each month, as follows:

**First Saturday - Cleveland, WI** - Stoegists Restaurant (joint breakfast with ManCoRad).

**Second Saturday - Oostburg, WI** - Knotty Pine Restaurant.

**Third Saturday - Sheboygan Falls, WI** - Park View Restaurant

**Fourth Saturday - Sheboygan, WI** - Town and Country Golf Club.

Visitors are welcome.

**- Thanks Joe Ash, W9ODV**

:-----:

**Every Saturday - Madison (Monona)** - Mother's Day Family Restaurant in Lake Edge Shopping Center, Monona Drive in Monona. Informal group, usually begins around 9:00 a.m.

**- K9ZZ**

:-----:

If your club or an informal group has informal breakfasts or other get-togethers like the above, and if visitors are welcome, please send the information to K9ZZ, address on page 2. If visitors are not welcome, then please do not send your schedule.

# THE WISCONSIN PACKETEER

Wisconsin Amateur Packet Radio Association (WAPR)
c/o CARL SCHUMACHER, N9BYS
7740 EVERGREEN TERRACE
BURLINGTON, WI 53106

Steve Loeffler, WB9ZRE, Editor, 123 W. Oshkosh St., Ripon, WI 54971

WAPR Meeting

The next WAPR meeting will be held at the WARC Midwinter Hamfest in Waukesha, Wis., on January 13th, 1990 at 10:30 AM. We will have a room for Packet Radio all to ourselves & are planning to have an operating HF & a VHF station there & will be giving demonstrations on linking & moving through the networks.. You do not need to be a WAPR member to attend these activities, but do hope you will join the organization.. We will see you in Waukesha...

Dan - WB9TYT
Chairman of WAPR

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Here is the monthly statement for November 1989.

| | | |
|---|---|---|
| Income | | |
| Dues | $25.00 | |
| Expenses | | |
| BSSS Subscriptions | | $375.20 |
| Misc. HAPN Boards | | $216.00 |
| Total | | $591.20 |
| Cash on hand | $103.67 | |
| Bank Balance | $865.95 | |
| Total | $969.62 | |

Respectfully submitted:
Carl Schumacher N9BYS
Treasurer - WAPR

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INTRODUCTION TO PACKET

Radio Amateurs worldwide have been using packet radio, a system of computer-based communi-cations, for a few years. This mode can provide high-speed communication with efficient use of spectrum, as multiple stations can conduct QSOs on the same channel. Not only can packet radio be used for informal amateur QSOs and traffic handling, but it has additional usefulness for exchange of data between hams with computers, bulletin boards and message systems, and remote computer programming.

WHAT IS PACKET RADIO?

Packet radio is a communication system in which information is digitally encoded. In this respect it is similar to RTTY, but with important differences. These differences are the key to insuring error-free reception and at the same time allowing maximum use of the spectrum through shared frequency use.

Data integrity is provided by packet radio through a "handshak-ing" technique and error detection. Along with each transmis-sion, a computed value called a "frame check sequence" (FCS) is sent, which allows the receiving station to check for errors. The receiving station acknowledges an error-free packet with a special acknowledgement (ACK) signal. If the sending station does not receive such a signal within a certain period of time, it automatically retrans-mits the packet.

A packet also contains identification of the destination station, permitting several QSOs to take place on the same frequency. A packet radio station can automatically ignore any packets which are not addressed to it. Due to the fact that the duration of most packet transmissions is very short, a user does not need the channel most of the time. The time between transmissions is available to other users on frequency. This system is called time-domain multiplexing. On a very busy channel, the user will notice an in-creased delay time before getting replies to trans-missions, but the packet radio equipment will take care of auto-matic retransmissions and sorting out the replies meant for the station. The user never "hears" the QRM.

WHAT IS A PACKET RADIO STATION?

Packet radio requires the use of a micro-processor-based control-ler at each station, and it will obviously appeal to the ham who already has a computer in his or her shack. However, it does not require that the operator be a program-mer, or even that the station have a personal computer. All that is really necessary is a terminal, a terminal node controller (TNC), and an Amateur Radio transceiver.

The terminal can be a simple display or typewriter terminal that produces ASCII charac-ters, a personal computer, or even a commer-cial mainframe computer. What you need is a terminal with a keyboard to allow you to talk and a screen or printer to allow you to read incoming informa-tion. You can even get an inexpen-sive terminal or computer that uses a TV set for the display.

The terminal node controller is the heart of the packet radio system. It has one port that is connected to the terminal or computer, and com-municates through it by asynchronous ASCII format at the baud rate required by the terminal. The TNC con-verts the data stream from the terminal to a packet by attaching a "header" showing the destination of the packet and control information for the network, a "tail" containing the result of the FCS calculation for error detection, and flags to mark the beginning and end of the packet.

The second port of the TNC connects it to the transceiver micro-phone and speaker audio lines, and the PTT line. Ordinarily, the TNC will produce AFSK modulation by putting one of two tones into the microphone input, correspond-ing to a "mark" or "space". In this fashion, the packet is sent out on the air at the packet channel baud rate, which is unrelated to the terminal baud rate at the other port of the TNC.

The receiving TNC reverses this procedure, decoding the audio tones from the speaker audio line of the radio, removing and reading the header and tail information, and passing a success-fully received packet to the terminal at the terminal baud rate.

The part of the TNC that does the transla-tion between the se-quence of tone frequencies and the characters is called a "modem", short for MOdulator-DEModulator. This device may or may not be built into the TNC board. Most packet radio modems oper-ate at 1200 baud, which cor-responds to about 1200 wpm, although the FCC now authorizes much higher baud rates on some amateur bands. The audio tones used are 1200 Hz and 2200 Hz. This choice of frequencies is that of the Bell 202 modem.

The final component of a packet radio station is an amateur radio transceiver. Most packet radio activity so far has been in the 2 meter band. The only important requirement of the radio is that its audio frequency response at 2200 Hz be adequate. In other words, the 2 meter FM rig you already have is probably just fine.

Next month, THE NITTY GRITTY OF THE TNC AND PACKETS.

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WEBERSAT: A Satellite for Everyone

I recently attended the AMSAT Space Symposium in Des Moines, Iowa and heard a presen-tation by Stan Sjol, WOKP on the development of WEBERSAT, one of the less well known of the microsats. One of the experiments that is con-tained on WEBERSAT is a camera that will take and send pictures of the earth back to ground sta-tions. I've heard about this capability before, but it was never exactly clear to me whether the pictures would be generally available, or whether they would require specialized equipment. So during lunch I took the opportunity to buttonhole Stan and ask him some questions.

What I found out was that WEBERSAT may be one microsat that has really hidden its light under a bushel. Anyone with a microsat-capable station will be able to receive the pictures sent

by WEBERSAT, since they will utilize standard packet communications technologies. These pictures will be able to be processed by any IBM compatible.

John - WA0PTV

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PK-232 MBX Bugs

An apparent PK-232 firmware bug contained in the new MBX version has been discovered by several operators in last few weeks. The problem manifests itself follows:

While MAIL is on, the operator enters the PACKET mode. The operator types MDS and enters one or more messages, types BYE, and EXITS the MBX.

The operator can now go to any other mode and copy data, even garble will suffice for the test. The operator then returns to the MBX, and attempts to READ or KILL the messages entered above. The PK-232 will then go into an endless loop, or simply lock up. The only presently known solution is to cold boot, or to turn off and back on the unit. Yet another symptom is that occasionally the text will become truncated down to 15 characters.

The customer service department of AEA has been made aware of these bugs and hopefully a solution should be issued soon. In what form this fix will ultimately take place is not known for certain at this time.

Brian - W5VBO @ N7GLL

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PK-232 Noise Cure

Several AMTOR bulletins by TG9VT, ZS6AQC and others have explained a simple modification which allows the PK-232 to copy much weaker signals in all modes than was previously possible. All who have completed this modification report results which can only be summed up as amazing. Basically the modification consists of adding bypass capacitors directly across the power supply pins of all op-amp filter IC's.

This removes troublesome power bus noise, produced by other circuits within the unit, which tend to interfere or cover-up weaker signals.

I have added some details to allow a somewhat clearer explanation of the basic mod, but full credit should go to the originators.

Naturally, any modification to a unit under warranty will void that warranty, so beware.

1.) Kill power, remove all cables label them if necessary electrostatic handling precautions must be utilized.

2.) Remove the top cover by removing all six cover screws, side and rear.

3.) Remove the knob on the threshold control along with the nut which fastens the threshold pot to the front cover.

4.) Remove the entire PC Board by removing all 6 fastening screws.

5.) With the front of the board facing you, locate U-23, an MC34074-P, on my unit (S/N 21186) all of these type chips are colored shiny black and marked "JRC" as opposed to a flat black type packaging on all other IC's. In addition, all of the chips addressed by this mod are on the right hand half of the board. Flip the board over and mark the socket with a felt tip type pen. Also mark pins 11 and 4 which are adjacent to each other. Continue this same procedure with U-26, 28, 30, 32 and 34.

6.) With the P.C. board positioned foil side up very carefully install a bypass capacitor across pins 11 and 4. In all cases pin 11, toward the rear of the board, is the minus side. Pin 4, toward the front of the board, is the plus side.

Ideally a ceramic .1 UF @ 25 V or higher, and an electrolytic 1.0 UF @ 25 V or higher should be paralleled across the pins. The two different types of capacitors tend to provide alternate paths and avoid strange resonances that can occur when only one unit is used, providing more effective bypassing action. A fair amount of dexterity and attention to detail must be utilized by the technician.

If you aren't fully confident of your abilities in this area, it is suggested that just one capacitor in the .1 UF to 1.0 UF range be installed.

Also ceramic types are the most effective types, tantalums are not so effective.

7.) After carefully inspecting your work especially for shorts to neighboring pins, reassemble the unit and properly reconnect all cables. I think, that like all others that have implemented this modification, you will be amazed at the enhanced weak signal receive capabilities.

Brian - W5VBO @ N7GLL

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DX Packet Cluster - East

For those of you that are interested in chasing DX, two DX clusters are in operation in eastern Wisconsin. KS9K (Sheboygan) and AA9A (Freedom) are active DX clusters accessible thru the #SHE2 (NF9R-2) node near Plymouth, Wisconsin. The clusters feature real-time DX information from connected stations, as well as a DX log for past reports of DX station activity. I have checked into both clusters and have noted healty activity. A DX cluster is one way to maximize your chances of finding that RARE one.

73, Steve - WB9ZRE

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BZ1FB (China) has been active on packet thru the month of November.

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'NORTON' VIRUS

Date: 10-17-89 (18:52)
To: ALL
From: TONY MCNAMARA
Subj: Trojan Horse

We at Peter Norton Computing would like to bring to your attention an unauthorized trojan horse named NortStop.ZIP or NortShot.ZIP (these files are the same). This file was NOT produced with the knowledge or permission of PNCI.

This file is not a virus (it does not infect files). Instead, it is a trojan horse (it must be run explicitly to cause any damage). When run, it lists the directory and claims the system is virus-free. Between December 24th and December 31st, however, it will erase files in several directories based on their extensions.

These files can be recognized by their sizes (NortStop.ZIP is 31744 bytes, NortStop.EXE is 38907 bytes), or by doing a text search for the strings "NORTSHOT.EXE" in the ZIP, "Norton Public" in the EXE.

If you find or hear of these files, please contact us immediately through Tony McNamara, 213/319-2076 (voice), TMCNAMARA 381-9188 (MCI), or CompuServe (72477,2504).

Again, these files are in no way associated with PNCI. Please help us track down and eliminate these files.

Thank you, Peter Norton

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YANKEE DOODLE VIRUS

This virus was discovered in Vienna Switzerland by Alexander Holy at the United Nations's office on Sept 30th. The virus has reportedly been transmitted to the U.S. through U.N. enployees via the game - "OUTRUN". The virus plays the tune - 'Yankee Doodle Dandy' on the systems speaker 17 hours after an infected program is loaded. Both COM and EXE can be infected and infected files grow by 2899 bytes. No knowledge yet of eventual damage potential.

If you have recently downloaded this game or know where I might find it, please leave a message for me at one of the BBS's listed above. We would like to disassemble it and identify any distructive properties.

Jim - KA4USE @ K4NGC /@ N4QQ /@ KF4TE-4

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# SSB

## SELL SWAP BUY

## OUR WANT ADS GET RESULTS

FOR SALE: Xerox-II computer with dual 8" drives. Extra hardware, (motherboard, monitor, cables) and software (supercalc, Wordstar, utilities and 50+ disks). $100.00. Tom Tomasi, KW9Q, 1176 Elmore St., Green Bay, WI (414) 499-2645

WANTED: Oscillator-Amplifier assembly, 650-P1, for General Radio type 650-A Impedance Bridge. Speaker with cabinet for Collins 75A3 receiver. Fred A. Linn, W9NZF, 5608 Edgewater Dr., Cedarburg, WI 53012. (414) 377-3280.

FOR SALE: National Receiver, NC-190, in good workig condition, $60.00. 3 rack mount brackets and panels for Collins equipment, 30L1, KWM2A, and 312B5 or 312B3. HRO receiver, wih 5 coil sets, in good contition. $150.00. NC-300 receive, wih speaker, and VHF converters for 6, 2, & 1-1/4 meters in matching National cabinet. $200.00. This receiver is restored and in excellent condition. All equipment is in good shape, and photos are available upon request. I will pack and ship UPS, insured, the recipient to pay shipping charges. Satisfaction is guaranteed, and if problems arise, money back is assured upon receipt of the return shipment, prepaid. Fred A. Linn, W9NZF, 5608 Edgewater Dr., Cedarburg, WI 53012. (414) 377-3280.

# Yellow Thunder Amateur Radio Club

K90DK
WB9FDZ

Harry Westlund, K9EHJ,
Secretary
720 Jefferson Street
Baraboo, WI 53913

The January meeting of the Yellow Thunder Amateur Radio Club, Inc. will be held on Tuesday, January 16, 1990, in room 14 (old 25) of the Baraboo Civic Center, Baraboo, WI. The Novice Class information meeting will begin at 7:00 p.m. with the regular club meeting following at 7:30 p.m.

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The December 14, 1989 meeting of the YTARC was held at the Baraboo Civic Center in Baraboo, WI.

The following members and guests were present for the meeting:

| | |
|---|---|
| Dennis Sweeney | Portage |
| Dennis F. Sweeney | Portage |
| Joe Sweeney | Portage |
| Steve Schwoegler, WBRNL | Wisconsin Dells |
| Art Kleefisch, W9WSS | Baraboo |
| Harry Westlund, K9EHJ | Baraboo |
| Jim Decker, WB9UQT | Baraboo |
| Harry Mayland, K9FFT | Baraboo |

The minutes of the November meeting printed in Badger State Smoke Signals were corrected to include Ken Johnson, K9DZG, as a nominee for the office of Vice-President, and accepted as corrected.

The treasurers report was given by the Treasurer, Jim Decker, WB9UQT.

Old Business: Art Kleefisch, W9WSS, contacted the Sauk County Sheriff, left his card and the Sheriff will be getting in contact with Art at a later date.

The January meeting date has been confirmed as January 16, 1990, in room 14 (formerly room 25), and the remaining dates for 1990 will be confirmed shortly.

The Novice Class plans are well underway, and a Novice Class information meeting for the students will be held at 7:00 p.m. prior to the January meeting.

New Business: Suggestions for meeting programs and for BSSS YTARC column information was requested and discussed among the members.

Election of officers: There were no additional nominee offered from the floor. The following candiates were elected without opposition: President, Duane Grotophorst, KA9HKL; Secretary, Art Kleefisch, W9WSS; and Treasurer, Jim Decker, WB9UQT. The only contested office was that of Vice-President, and Ken Johnson, K9DZG defeated Steve Schwoegler, WB9RNL for that post.

The Buck Nite drawing was won by Marvin Kaiser, who was not present, so the prize next month will be &3.00.

Following the regular meeting, the annual Christmas Party was held with an exchange of gifts.

The formal minutes of the meeting were not received in time for publication. The above information was given to BSSS by Art Kleefisch, W9WSS.

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YTARC BIRTHDAZE

| | | | |
|---|---|---|---|
| Art Escher | WA9WUS | March | 12 |
| Fred Becker | W9KKM | March | 17 |

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SENTENCE SERMON

A good New Year motto-- "In God We Trust"

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CQ FIRST TUESDAY

On Tuesday, November 7, 1989, a group of Waushara and Waupaca area hams got together and organized the areas first "CQ 1st Tuesday" A total of 20 hams and 2 scanner listners attended for some fun and good food.

Any Hams who are in the area of Waupaca the 1st Tuesday of each month are invited to meet with this Central Wisconsin group, and have an eyeball. The meetings are held at the King's Table Highway QQ, in King, Wisconsin at 11:30 a.m. Talk in is on the 147.39 repeater. The King's Table is just Soutwest of Waupaca. Take Highways 10 or 54 or 22 to Highway QQ.

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TESTPOINT

(continued from page 4)

Tomahawk, WI

Last Saturday of every month. Jan. thru Oct.

Tomahawk Volunteer Examiners (ARRL/VEC). Tomahawk, WI. No pre-registration required, but appointment would be appreciated. Registration at 8:30 a.m. and testings starts at 9:00 a.m. For location or other information, inquire on 145.43 MHz. repeater or contact: Greg Garner, WA9W, 4088 Highway 51, Harshaw, WI 54529. Telephone (715) 453-7096.

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Loves Park, IL

Third Saturday of every month.

Northern Illinois Volunteer Examiners (DeVry VEC). Held at North Suburban District Library, 6340 North Second St. (Hwy. 251), Loves Park, IL. Contact: Dennis G. Elstn, W9SS, 5006 N. Second St., Loves Park, IL 61111. (815) 877-6768.

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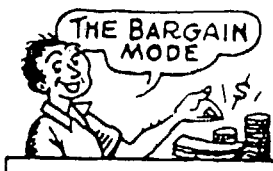
This section of Badger State Smoke Signals is available to publicize your Volunteer Examineer Amateur Radio license examination schedules.

Please send us your schedules of dates, times, and locations that you will be conducting examinations and we will include the information here. Be sure to include contact address and any other necessary requirements. Information should be sent to K9EN at the address shown on page 2.

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Do nudists wear one button suits?

We must be etting old. We now consider the 9:00 movie to be the late-late show!




# SSB

SELL SWAP BUY

OUR WANT ADS GET RESULTS

FREE WANT ADS - Non-commercial want ads run in BSSS are free. Ads are run on a space available basis at no charge. Send you request to Kenneth Ebneter, K9EN, 822 Wauona Trail, Portage, WI 53901

FOR SALE: Hallifcrafters HT-33B 80-10 Amplifier, with extra final. Heathkit HA-10 Warrior Amplifier converted to mono-band 160 amplifer. Original tank in one piece to convert back. MFJ-989 3KW tuner. Jim Burcum, K9LBX, W6588 Flint St., Onalaska, WI 54650. (608) 783-1611.

WANTED: Filter capacitor, 10-30 mfd, at 300 volts. Jack Tinsma, KA9EOX, W2874 Pine Mead Ave., Shawano, WI 5416

FOR SALE: Commodore Cassette #C2N, Comodore Floppy Disc Drive #1541, Comodore Computor #64, Vic Graphic Priter #1525 & Comodore Monitor (color) #1702. Would like to sell as a package deal. Roy A. Pedersen, K9FHI, 510 Park St., Juneau, WI 53039. (414) 386-4666.

FOR SALE: TA31 Mosley antenna, MT-3000A Dentron tuner and Drake 2B with 2BQ multiplier. Millard Christianson, KD9QP, 424 W. Pine St., Sturgeon Bay, WI 54235. (414) 743-1310.

WANTED TO BUY: P.S. 30 Kenwood supply (130S). Also old test meters, volt meters, etc. Millard Christianson, KD9QP, 424 W. Pine St., Sturgeon Bay, WI 54235. (414) 743-1310.

WANTED: 1945-46 issues of CQ Magazine, and ARRL Repeater Directories, editions #1 thru 7, 12 and 14. Dennis G, Eksten, W9SS, 5066 N. Second St., Loves Park, IL 61111. (815) 877-6768.

FOR SALE: Colorful United States Stamps. 100 all different. $1.00 postpaid. Richard Regent, K9GDF, 5003 South 26th St., Milwaukee, WI 53221.

WANTED: Old or unusual telegraph keys and bugs. Contact Jerry Scherkenbach at call book address, telephone (414) 481-8831 or Packet radio N9AW @ WB9TYT.

FOR SALE: SENCORE test equipment - VA62 Video Analyzer with NT64 NTSC adaptor and VC63 VCR adaptor & expander adaptor, $2200.00; CR70 CRT tester/restorer, 600.00. Less than 4 years years old. Kenneth A. Ebneter, 822 Wauona Trail, Portage, WI 53901. (608) 742-3560.

FOR SALE: TEKTRONIX 7504 oscilliscope with the following: 2 7A16 vertical amplifiers, 7A22 differential amplifier, 7B50 time base, 7B51 delay time base, 7D13 digital multimeter, 7M11 delay line, 204-1 mobile cart & probes. Working in good condtion but some modules may need minor repairs. Kenneth A. Ebneter, 822 Wauona Trail, Portage, WI 53901. (608) 742-3560.

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